

499

TTTTTTTTTT TCTACCCACA GCCTATTCCA CTCCTCCCCA TCTCCAGGCG 150
CTGGGAGGGG GGCCCTCACC CCGTCACGCC TCGCTCCCTC CTGGCCCTCT 200
5 GGTCCAGCCC CTTACGCCTC CTCTCAGTCT ACTCAATTGT GACTGTCCCT 250
CCTGATGTAT TTTTTTTTCC TCCAAC TCA AAGGCAAAAA TAATCCTATT 300
TTTATTATCT TGCTACAACT GCAACTTTCT GCCCTATAAA TTTACATTCC 350

10

(2) INFORMATION FOR SEQ ID :986:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 289 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :986:

AGCGACCGCC ACTCACTGTG AGTCCACTT AATTCAGGTG AGCCGCTCTT 50
25 CTGCACCTCC TCCTCACACC TCTCTACCTA TACTAACCAT TTTTGAAGGT 100
TCAACAATGC TCTGCAAATC TTTTAAAGAC CCGTTACTTC AACAACTCCC 150
AATACCTTCC TCCTCAACGG AACAACTTAA CCGTTACCTT TTAAACCCGA 200
30 CGAGCTACAA AGCAAGAGAT ACTTCGCGAG CCAAATTCTA CAAAGGACCA 250
AAAAAGAAAC CCATTACCTT ATAGTACTCA TGCAAAAAA 289

35

(2) INFORMATION FOR SEQ ID :987:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 134 base pairs
(B) TYPE: nucleic acid
40 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

500

(xi) SEQUENCE DESCRIPTION: SEQ ID :987:

5 CACAATCATA GCATTTATTA CACGATTTAC ATCTGATCCT CACGCAATTT 50
TCTTCCTCAC CAATAAAGAA CTAATAGGAC AGCATATTAG AAGCAACATA 100
CATTCTTTTA TTCTTGCATC GCTATAAAGA AGTA 134

(2) INFORMATION FOR SEQ ID :988:

(i) SEQUENCE CHARACTERISTICS:

15 (A) LENGTH: 287 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID :988:

TTCTGAAATG AAGGTTTCGT CTTAGCTAT TGACTGTAGG ATTTGTAATT 50
CAAATCATCA CAGCATCCTA AAGAAATACT GTGTGAATGG AATGCACACA 100
25 ATTCCTACAG AACACACAAA CTGATGTCCA AAAGGCACAG AGTAATGCTG 150
GTGGCTCTTT CTAGTCAGTT AAGAAACAAT AAAAAGTCTG CATTATTCTT 200
30 TCATAATTTA AATACTTAAG TAATCTCCAC TTTATTATTT TATAACAATG 250
ACTTCAAATT TACATTATTT TAAGTACCAT TGTAATC 287

(2) INFORMATION FOR SEQ ID :989:

35

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

501

(xi) SEQUENCE DESCRIPTION: SEQ ID :989:

AGCAACCAAC ACTCACTGGA ATCCCGCAAT CAAGAGCTAA AAGGACTTCT 50
5 TCCATCTCTC AGGGACACAC ATCCACCGAT AAGAATAAAA GAAATGCCTG 100
AATGACTCTC ACTGGCACTT TTAAACACAG CAAGCCCAAC ATATTTTCTC 150
CTTTTCATAA AGAAGCCTAT ACACCAT 177

10

(2) INFORMATION FOR SEQ ID :990:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 158 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :990:

TTCCTATACT ATGTCGGTTA AAAGCCTTCA TAGAATATAG GCACCAAAAA 50
25 TAAACTAACC CCACACCCTC ACCAACCAAA GGAGGCACAA TCCAACGAAA 100
CTGATGAAAA GTCGAGGTAA CGACTCTGCA GACCGTACTC ATTTCTAAAC 150
CAAAAGTC 158

30

(2) INFORMATION FOR SEQ ID :991:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 267 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :991:

502

TAATCCCTTT TAAGCAGAGA TACAGTTTCA CAGAGAGAGA ATGTTTTAAA 50
AAGACCCACA AGGGGAAGGG ACCAAGTAAG CACTTTTAAT TCATTTTGAT 100
5 TACACAAAAA TAAGGCAAAC TAAATGATTC AGAACAATTC AATTAACTG 150
AAGCCTTCTA GAAAAATACT CAACAGGCTT CAACAAAAAG ACTTAGCGCA 200
CATAAAACAA TCACGAAGAT CACAATTTCA GCACAAATAT CTGAAGGAAT 250
10 ACACGCAAAA CATCATA 267

(2) INFORMATION FOR SEQ ID :992:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 199 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :992:

25 AGGATGTGTT CATGCTGGCT TTCAGGATGT CCCAAGGCAC GGCACAGTGA 50
TTGTCAAATT CCACTTTGCA TGGAGACAG CACAGAACCC TGCTCTGCGT 100
CAGCTGGAGA GCTCCGGCCA GCACGGCCAC CAGCAGCATG ATCAGTGTGA 150
30 TGCAATACCA GAAGCCGTCC CACCATGATT TTAAGATGTG ATAAGATGA 199

(2) INFORMATION FOR SEQ ID :993:

35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 198 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

503

(xi) SEQUENCE DESCRIPTION: SEQ ID :993:

TTTAAGGTGC TAAACTTGCA CCTCATGTCC ACTCAGTAAC AAGTATTGGG 50
5 ACGTAGAGCA CAGCCTCACT CAGCTCTGAA AGGTAATACA GCTTGCGAGG 100
AAGTGAGCCA GCAGTGGCCT TTGCAATTGT GGATCTTGAG CTTTGCTCTT 150
AGCAGATCTC AGGCGTAACC ATTCGCTAAC TGTACTGAAG ATGCGTCC 198

10

(2) INFORMATION FOR SEQ ID :994:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 183 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :994:

GCTATCTGCG GGGCCATTCG TAGGATGGGT GAGTCAGATG ATTCCATTCT 50
25 CCGATTGACC AAGGCCGATG GCATCGTCTC AAAGAACTTT TGA CTGGAGA 100
GAATAACAGA CGTGGAATAT TTGTCATAAA TAAATAACGA AAACCTAAAA 150
AAAAAAAAA ACAACAAACC CCAACAAACT CAA 183

30

(2) INFORMATION FOR SEQ ID :995:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 199 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :995:

504

ACCTCTGCAT TAACACTCCA GCACCTTTGG TTAGCCAATT TGGCCTTATT 50
TGTTCTCCA CCATTGGATT ATCTGTCCAT CAAGGTCAGG AATGTTTTTCG 100
5 GGTACCCCA CTGTCCCCAA CTTGGAATAT GCTCACTGCC TGGAAAATGT 150
TTATCTGAAT ATAAGGCATC AAGCCAGAAC TTGCCCAAAA CTAAATCTA 199

(2) INFORMATION FOR SEQ ID :996:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 177 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :996:

20

GGTCTGGCT GGTGGTTTAT GGCCCGGGCC TTCTTTCTAC GGGGGCCAGG 50
GTCCAATTTT CCACCTGGGG TTAAAAGTT AAGGAGGACC AGCCTGGGAA 100
25 CCCCTCGAGT GGGGACGCCA TTTCTATTAC CAGGGCCCCC TTATATTTTA 150
AGGGGACACC ATATGGAGAT TTTATGC 177

(2) INFORMATION FOR SEQ ID :997:

30

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 229 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :997:

40

GAGTTTCCTG TGCTGTTACA AATGTAACAT TCTCATATAC AACATTCATT 50

505

GAAGAGGCAC AATTCTTATT TTGAGGTGGC ACAGATTAGA CAAATTTTTC 100
AGTGAATAAT TCCTCTTTCA TTAGGAAATT TAACCACAAG CTGTATTTTC 150
5 GTAGAAAGTT GCTTGAAATT CTTTTCCTAA AAAAATTAA TTTTCTATC 200
TCAAATGAC CGTATGCAAA CGAACATTA 229

(2) INFORMATION FOR SEQ ID :998:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 233 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :998:

20

TTGCAGTGTT TATGCCC GCC TTCTTTCACG GGCAGGTTC AATTC ACTGG 50
TTTAAAGTA AGAGACAGG TGAACCTTC GTGGAGCCAT TTCATTACAG 100
25 GTCCCTTAAT TTAAGGAACA AGTTGATTTA TGCTACCTTT TTGCACGGTT 150
TAGGGTACCG CGGCCGTTAA ACATGTGTT ACTGGGCCAG GCGGTGCCTC 200
TTAATATCCG GGGATGTCCA GAAGGGGAGT TTT 233

30

(2) INFORMATION FOR SEQ ID :999:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 216 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :999:

506

TCAAAACTC AATATAATAT GTAAATCAGG GGTGTCCAAT CTTTGGCTT 50
CCCTAGGCCA TACTGGTGTT AGGCCACATT CAAAGCTATC CTAGGCCACA 100
5 TGTGGCTGGT GGGCCATGGG TTGGACAAGC TTGATGTAAA TAAACCACC 150
AGTGGAAGA GTTTGTTGTG AGTTACATTC AAATACAACA GGAGTAATAC 200
TATCATGATA TTAGTT 216

10

(2) INFORMATION FOR SEQ ID :1000:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 280 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1000:

GACAAGACCT AGAAGCAACA ATGCCAGTA GAAACAAACA CACCTACTGC 50
25 CTGGATCTTA GTTTTAAATT ATATTCCCCA ATAAAGAGAC CCAGGGCTCC 100
TTGTTGAAAT GGCTGATTCT AGGACTGGGG CAGGAAATAT GCAAGATGAA 150
CCTAGAATAT CTAATACTGC CAAAATTAA GAAAGTGTTT TAAAAAAAT 200
30 CCCCACGGAT AGGGTGTCAA AAGAGACATA GAAGCCATCT GAAGGAGTTC 250
CCAATGGCCA AAGATCAAAT AATTTTCAA 280

35

(2) INFORMATION FOR SEQ ID :1001:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 324 base pairs
40 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

507

(xi) SEQUENCE DESCRIPTION: SEQ ID :1001:

5	TGCATGATAG GAGCGTCCTT TGTTCTCATG AGGTGACTCT TGGTGGGCTC	50
	CTTATTTGGG GACTGGTCAC CAAAATACC TAACTATGGT TGGAAGCTTA	100
	GTGCTTTCAG CCCCATTCCT CATCCTCTGG AAAGGGGAGC AGAGCTGGAG	150
10	CTCGATCATG CCTGCGTGAC AAAGCCTCCA GAAAAATCCT TGAAAGACAG	200
	GACATGGAGA GGCTGCTGGG TTGGCGAACA CAGCCATGTG CCGGGAGGAT	250
	GGTGCACCCC AACTCCACAA GGACCCTTCC AGACCTCACC TGTGTATCTC	300
15	TTCATCTGGC TGTTCAATTG TATC	324

(2) INFORMATION FOR SEQ ID :1002:

20	(i) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 254 base pairs
	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: double
	(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1002:

30	ATTTCCATTC ATAAGTCCTC ACAAACCCAC TTTTCCTCTT GCCTGAGTGC	50
	CTCACATACC CTACTGCCTG AGATGGTTCC AGAGGCGGTC TCCTCTCTCC	100
	CCCAACGAAA CACCAGGCAC ACACCTGCCC CCAGTCTTGC CTGCACTCTC	150
35	CTTTCCTCCC GCAGAGAGGC ATTCTTTCT CCTCCTCTCA TCCTACACAC	200
	ACTATAAGAG ACAACTGAAA TCTTGCTTCC TCCAGCAAGC TTCTTAATTC	250
40	ATTT	254

(2) INFORMATION FOR SEQ ID :1003:

508

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 265 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1003:

10

AAGGTTGCGC TGCCCATCCT CTCGCCCTC GGAATTTACC CCTGGCCGCT 50
CAGGGTCTCG CTTCTAGAAG AAGATGATGG ATACTAGGGC GATCCTCCTA 100
TTGCCTTTAT ATTTAACAGG CCCGCCGAGG AGGGGCTCCC GCTGGTGCCC 150
ACATAACTCT ATTAGACCAT CTGAGGCGAC TTCCCCCACC CCCTCCAACG 200
CGCCTCACGC ACGACTCTAG CAAAAGACAG GTTCCGCGGT GGTCACGTCG 250
TTTGAGACTA TACTG 265

20

(2) INFORMATION FOR SEQ ID :1004:

25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 263 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1004:

AAATATGCCC TGAGGATTAT CTGATGTCGA TGGTGTGGAA AAGAACTCCA 50
GCAGGCGACT TCGATTCAA TCAATGTCCC CTGAATGCCA CAGAACCACT 100
AGCAGACGCT GCTCTCTCAG TCTTAATGGA GTGGCCTTCT GGAACAGCC 150
GAGCTTTGAA AGATGCATAT CAAATGAGTA CAGACACTTG TAGCATTTAA 200

40

509

TCAAAGAGCA CCTTGCTAAG AGGCAGCGAA TGCTGGCAGG TGATGGAATG 250

CCCCAGGTGA CCA 263

5 (2) INFORMATION FOR SEQ ID :1005:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 317 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1005:

CGAGACTGCA GTACTTCTAG AAGTTGTGA ACTTCTAAGA AAGAGCCAGG 50

CTCCATCTC ACTATTCCTT GATCATTATC TCTGAAGTCC CTACCTGCAC 100

20

TTCCCTGATT GTCTGTAGC AACACCAGCA TGGTGGGAAT TGCAGGCAAA 150

GATTGTGAAA AATCCCTAAA GGGTCATTGC TCATGACGTT ATTTGCAATT 200

25

GTAAAATCGT GAGCCACTCA TATTCAAACT AAAAAAAGAA CAGAACTTTT 250

ATTCACGTTG TGAAGCTTAC TCCCTCGCCA TTTACGGAT CAATGTCAAA 300

CGCTTGCATT CATAAAG 317

30

(2) INFORMATION FOR SEQ ID :1006:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 287 base pairs

35 (B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1006:

510

CGGAAGCATT ATCCTGTCAT CAGAAGATGG ACCTTTCCTT GGAATGCCTT 50
TTCCCTATCA TGTCTGTGTG GTAAATACCT ATTCATCCTT AACAACTAG 100
5 CTGAGGTCTT ACCTCATCAG GATTGATCC CCCAAAAAGA TTTGTCCCTC 150
TCTGAGCTAT CTTTATAACT AGTACATACT CCTACCAGCG GACTATGTTA 200
TAATAATGTG GCTATATGCC TGTGATCTCA GCGTGAGCTC TTTGAGGACA 250
10 GAGTCTTTGT CTAAATACTC AAAACCCTGT TTACCAT 287

(2) INFORMATION FOR SEQ ID :1007:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 273 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1007:

25 GGGCACCAA ATACACATCA GAGGAGACTG GCTTCCATGA GACGCTTCGA 50
CTGTCTCATC GGGGCACTTG TAATAAGCAT CTTGATGCCA CTGAATGCAA 100
TGCTGTATTC AAATAATAGC TTTCATCTTC ACTATAAAAC AATACAAACG 150
30 TAAACTTTGA AGCCCTTTGA AGGACCTAAC CAAACAACAC AAGGATGAAA 200
ATAGATCAGT ACAACTTTGA GACACATTAT TAGGTCAAAT CTGCAAAGCA 250
35 TATTCGGATT TTACCGTAAG GAA 273

(2) INFORMATION FOR SEQ ID :1008:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 308 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

511

(D) TOPOLOGY: linear

5 (xi) SEQUENCE DESCRIPTION: SEQ ID :1008:

TAGAGTGGGG GGCCAAAACC TCTGCAGTCC CCGGCAGTGA GCTATGGACT 50
TTCTTCCCCC TCACAAGGCT GGGGGCCTCC TGCTCTCGTC CCTGGCCCTC 100
10 CCTGCACAGG GCAAAGCCAG TCTGGGCTAT GGCACACAGA GTTCATGTTT 150
GCGCCCTCTC CCTGCCCTC ACCCCAGAGG GTGAGGAGGA ATGAGGGGCA 200
15 TTGATGGTTA GGCCGGTTGT TGCCTCGAAC AGCTGGAGGG AAGCTGCAGG 250
GGTGATAAAA TCAAAGCGAT ATTGACACAC TACAAACATT ATAGAACCTG 300
CAAAAAAA 308

20

(2) INFORMATION FOR SEQ ID :1009:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 187 base pairs
25 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1009:

GAACCGCCTC TGTTTCCAGA GCAACTGGTC AAAACCTCTC CAAATACCGA 50
35 GCAGTTTGA AACTGGATT AGGAACCACT AATGAAAAAG AACAGACTCA 100
GGGACAAGTG TTTGGCGGGA ATGTGTGAAG AGGTAATAA TGAGTGTAC 150
TGAATCACAC TATTACACAG ATGAAACAAA GCCTTTA 187

40

(2) INFORMATION FOR SEQ ID :1010:

512

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 175 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1010:

10

AAGAAAAAGA TATTAAGATG GGCAAGTCCT GGTGGCAAGA CAAGCAGATG 50
ACATTACAGA CAATGGACAT CAAACTGCTG CCAAGCTAAT TTAGATTGTA 100
AAAACAGCTC CATAGTCAAT ACCCATGAGT GATCTTAAAT ACGCACAAAT 150
AAGCTACTTC TCCTTGATAT TACCT 175

15

(2) INFORMATION FOR SEQ ID :1011:

20

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 208 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1011:

30

TGAAAAATAT TTGGAAGTCT TTAGTACAGA ACAGTTTCAA TATGAGTTAA 50
GAATCATGCG ATGACTACCA AAAAGCTAAT GCGATCCCAG GCTGCGGTAA 100
CAGAAGCAGA GCAGCTCAGC TGGGGAACGT GATAGTGATA ACTACTTCGT 150
ACTAGGTTAG ACTGTACCGA GAGACCTATG TTCAGTTCTG GGAGTGAAAG 200
TATTTTAT 208

40

(2) INFORMATION FOR SEQ ID :1012:

513

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 184 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1012:

10

ATGATATCTA GACTACCACT ATTTTTTGAA TGAGGCTTTC TTAGGAGTAT 50
GTTGATGCAC TCTCATCCTT TCCTCCCCGG ACTCCTACCA CAACCCTCTG 100
ACTGTGGAAT AGCATGGTTG TGTGTAAGGC TGGAGCACAG GCACAGTGAG 150
ATGAGGATGA GGGATTGAGG GATGCTATAA GCCA 184

15

(2) INFORMATION FOR SEQ ID :1013:

20

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 263 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1013:

30

CTTGACATT TGATCAGACC AAACAGTGCT GTTCCCGGG GAGGAAACAC 50
ATTTAATAA ACACATCATC CCGCAGGCTC CCACCTTAC CTCATGTTTC 100
ATACCTTGTT TATCAAATGA GCGACTCAA ATGATTAAAA ATAATGCTGT 150
TCTTTAGTAG CAACTAAAAT GTGTCTTACC GTCATTATA TCTTTGTCAC 200
CGGAAAGAAG CATTTTGTAT ACTTTACTGC GAGTCAAAAA TCAATACGCA 250
GAATGGCATT TGA 263

40

514

(2) INFORMATION FOR SEQ ID :1014:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 229 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1014:

CAAATTAAGT GCCAGAATGA TGCAGCCCGC TCTCACCAGG AAGAACGACA 50
TGTGAGAAAA CTTATAGCAG ATGCAAAAAT GTCAACCCAC CATGTTATTT 100
AAAAAAAAT ATGACCAGGA TACAAGGACA CTCACCGTT TTTAACCCAC 150
ACAAGGTCAG GTAATGTTTA CCTTGAAACA CAATCGCATA TGACCCTTTA 200
TGCCACTCAC CTAGGCCTTT AATAATGAG 229

(2) INFORMATION FOR SEQ ID :1015:

25

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 246 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1015:

GAAAATAATG ATTCATATTA CCGGGTATTT CTTATCCAGT CTTTCATTCT 50
ATGTAAATTG TGTGTGTGTC TATATATGCG TGCATGTCTC TCTCTACATG 100
TATATGTGCA TATGTATGTA TATATATGCA TATGCACATA CATGCCACAC 150
ATGCACATAT ACACACACTC ATAGAGAACA AAATTATTCC GAATATTTCA 200

515

TGAGGTTTCT TATTATAAGG AGACAATATT GATGCAATCT AATTAA

246

(2) INFORMATION FOR SEQ ID :1016:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 287 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1016:

15 TTCATAATCG CTGGCACTGA ACAAAGTTGC AGAATTCTTT GCCAGGTACT 50
TTAGGAAATC GTGAAGATAA TTGAGTAATA AAGCAAGGCT CTTCTCATCC 100
AGAGGTGTAT AAGCCAACAT CGCTCCAATT CGTACAAATA ATCTCAGGAG 150
20 ATGTGGCGCT CCATACACCT GGGACATGGG TGCATCGGGA TGATCTGCAA 200
GAATTCAGC ATACTGTGGT CTCTCAAATT TATAGAGTAG CTGGGTACCC 250
25 AACATTACGT TGAAGTATTC TTTTATACTC GCCACAA 287

(2) INFORMATION FOR SEQ ID :1017:

- 30 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 299 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1017:

40 ATATGAGAAA GCAGAGCAAA ACAGATGATG CTCTAAATGC AACTGACACA 50
CTTGCTAAAG ACGTTAGGTG CTCCATAAAT GCTTGTGTA ATGCTGTTTG 100

516

TCAACATTTG TTGTGAAAAA TTCATCTCTC CATCTAAGAA TCCTCATGAG 150
TTAACCACAA TCAGTTCTAC ATAATTTAAC AGAAAACATC TGGTGGCACT 200
5 TTTAAATGTT TAAGGACAGC ATTTACACAA CTAAGCCCGC CCCCAGTCCC 250
ACTGCAGCAG GAGAAAATAA GGCTATGGAG AAAAGCAAGA TGAGTTATA 299

(2) INFORMATION FOR SEQ ID :1018:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 274 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1018:

20

ATTACTCCTT CTCTCGAATG CTTCCAGAAG AGTAGCCTC ACCACCTCAT 50
GAGGAAAGGC ACTGCAACTT TGGTCAATGA TATCTGTTAG AAAGATCTTT 100
25 TCCTATATT AGAAGAGTGA TTCTCATACC TGAGCATGTA TGAGAATCAG 150
TGGGTTTGAG GTGGGCCCAA GAATTTCCCT TTTAACAAG TTCCCAGAAG 200
ATGCTGATGT GGCAGCTTCT AGCACAGTGC TTGAAAATCC ATGAGTTTTC 250
30 AAGAGGACAA TCTAAAGTGC TCCC 274

(2) INFORMATION FOR SEQ ID :1019:

35

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 232 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
40 (D) TOPOLOGY: linear

517

(xi) SEQUENCE DESCRIPTION: SEQ ID :1019:

TTTCTTTGTC CTGACAAAT ATTTATGGAA TGCCGGAAAT TATGGAAAAA 50
5 CAATTCCAAT GTTACGAAGT CCAAAGAACT GGAATGAGAA AACTCCTCAC 100
GGCACATTAT GCTGCATGGA ATGACAATCA TCCTCGGGGA ATTAGGGCAG 150
CATCTTCTAC CACTTTTAAA GGCTACCACG AGACGGGGTG GAAATGCCAA 200
10 AAATGGCACC TCATCTTTGA TCAAAGATTC AG 232

(2) INFORMATION FOR SEQ ID :1020:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 133 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1020:

25 AACAGTCCAT GCTGATCTTA GTAACATGA TGAAGATGGT GCTTGGCCTG 50
TTCTTCTTGA TGAATTGTT GAGTGGCAAA AAGTCCGTCA GACATCATAG 100
CAAGAACTAT GTGAAGAAAA TGCAACCTT TAC 133
30

(2) INFORMATION FOR SEQ ID :1021:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 280 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1021:

518

TCCTAGAACT CTGCTTGGAC CAGAAGATGT GAATAAACTT AAGCTTATTT
ATTTAAAATC ACAAATGAGT TGCTCTAGAT TCTAAAAGGG TGAAACTTTG 100
5 ACTGTTGAAA GTTTAAGTAT TAGTAACTT GAGTTACTTT TTCTTTCAAA 150
TTTCACTCCG CTTCCCTGCA TTTCGAAGCT GCTCTTTCTG GTCCTACCCA 200
CCACCCACC AACAACTT GTGTTTGTTA ATAGAAATAA TTTATCAAGG 250
10 TATTGGGGAT CCATTGTCTA TATTTAAAC 280

(2) INFORMATION FOR SEQ ID :1022:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 304 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1022:

25 AAAATAAATA ACTTCTTAGA TTTTGGACTG AAAAGATCTG AGAATGTTCT 50
GCCAAACAGC CGACCAACTG GTGCAAAAGG TTAAGGCTGA CTGACTTAG 100
CAACCTGCAG CACAACCAA AACACTGATG CAGTTCAGAG CTCTTCAAAT 150
30 GCATACTTCA GTGTTACACA CACATCAATT AAATTAGGTT AAATTAGTTA 200
ATCCTCTAGA CAGTTTCTT TTTGTTTGC ATGCATCCCG TTCCATTTTC 250
35 ATTACGGGCA TCTATTCCTT GATCAATTAT GTGCTTTGCT TTTAATCGG 300
TTTT 304

(2) INFORMATION FOR SEQ ID :1023:

40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 237 base pairs

519

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1023:

TTTCTTTGTC CTTGACAAAT ATTTATGGAA TGCCGGAAAT TATGGAAAAA 50
10 CAATTCCAAT GTTACGAACT CCAAAGAACT GGAATGAGAA AACTCCTCAC 100
GGCACATTAT GCTGCATGGA ATGACAATCA TCCTCGGGGA ATTAGGGCAG 150
15 CATCTTCTAC CACTTTTAAA GGCTACCACG AGACGGGGTG GAAATGCCAA 200
AAATGGCACC TCATCTCTGA TCAAAGATTC AGAGCAT 237

(2) INFORMATION FOR SEQ ID :1024:

20

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 320 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1024:

30

GGCATGATTA TTAGAAACTA TTTAAGCTTT TTTCTTTGAA AAACAAGCTC 50
CTTTTACAGA ATATAAACAA CACTAGTGCC TGTGGTTTAG CCCACCAATC 100
35 TTGATGACTA AAAGTAGCTG ATGCATTGTG CATATGATGC TTGAGATGGT 150
TTTTGCAAAA GCAGAAATCG CTGCAAGGTA ATCACAATAG ATAAAAGTGG 200
TATTTTAAAC CTTTGAAATA AATGGATGTA ACTGTACCTT GGTACAGCTT 250
40 TTCACTTGTT TAGTTTTTAA ACGTTAGTAT AAGATTAGGT AATTGAGGGT 300

520

TAGAGCCAAC AGGAATCTGC

320

(2) INFORMATION FOR SEQ ID :1025:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 202 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1025:

15 TTCTGGCACC ACATTCAATA CTGATTCACA GGGATCTAAA ACATTCTAGT 50
TATTCAGTCA CTCTGTCCTG TGTGGCAGAT AGGACTTATG TATCTTCAGA 100
ATATTTGAGG AGTCATTCTC AGAGTCTCTC ATGAGTGCTC AACTTAACTG 150
20 TTCCACAAGT CTGTCTTCAT AGCTGCATGT TGCATCTTCC AGTCTCTGTT 200
CT 202

25 (2) INFORMATION FOR SEQ ID :1026:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 243 base pairs
(B) TYPE: nucleic acid
30 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1026:

ATTGGTAGAC AATATCATAA GAGTTTCTG ATAAAAGATG CTTTTTAACC 50
CTGACTCCCA GTCACAATTT TGGCATCTCA TCCATGGGAA AAAAATAGGA 100
40 AACTTATACA TTTCATAAAC TAAAGGTCAT CCAAACTG CCAAAAACGT 150

521

TTTTATAAAT TGAGACCTAC TTACATCACA TCGGTTTTCC AAAGAGAATA 200

CACAGCGAAA GATGAGGCTC CACCCGGCCG GCACAGTCAT GAA 243

5 (2) INFORMATION FOR SEQ ID :1027:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 185 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1027:

TATTTGCATT GAGGAAATAT TAATTTTCCA ATGCACAGTT GCCACATTTA 50

GTCCTGACTG TAGGAAACAC TGATTTTGTA AAGTTGCCTT TATTTGCTGT 100

20 TAACTGTTAA CTATGACAGA TATATTTAAG CCTTATAAAC CAATCTTAAA 150

CATAATAAAT CACACATTCA GTTTTAAAAA AAAAA 185

25 (2) INFORMATION FOR SEQ ID :1028:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 312 base pairs

(B) TYPE: nucleic acid

30 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1028:

GCTTCTCTAT TCCTCCTGCC CGGGAGGAGT AGAGGAATTC TGGAGCCACC 50

TTAGTGGGCA ATGGGGGAGC TCCTGATGGT TCAGGAGCAG GAAATTTATG 100

40 AGCAGAGTGG GGTCCCAGGC CACAGGGAGA TGTCTATCCA CAAGGGATGG 150

522

TGGCCAAGGG TTGAATGGAA AGAGGCAGGC AGGGGGAGAG GGGCAGAGGG 200
TGTGGGTATT CCCAGGGCCT TGAGAGTGA CATGGCCCCT TCTCCTCAGC 250
5 CTTCCATTAG CAAGGATGTC ACTGCTGCTC TTGCCTGATG ACAGCCAGAT 300
CTGTTACAG TT 312

(2) INFORMATION FOR SEQ ID :1029:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 218 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1029:

20

ATTATTTATA AATTTTAGTG AGCACCACCA AAGTTAGGAT TCAATTGAGT 50
TTGAATTCAA ATTCATTCAA AAGTTGCACA AATTTATTTC TTTTTCCTG 100
25 AACATTCCTT TACTTCAGAT TGACAATTCA TTCTATTTAG AGCGCTATTT 150
TAAGAAACCT TGATGAATCG CCCTTGACTA AAGGAAACAA AGTAGAATTT 200
TATACAGATG GAAAAAGA 218

30

(2) INFORMATION FOR SEQ ID :1030:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 124 base pairs
- 35 (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1030:

523

TTATTAGGGG GTTTAGAAAA TAAATTCGTA GGGTTTAAAC ATTGAATAAA 50
ACTACAAAAA AAGACACACA TTCAGGTAGC GAGGCTCTGG GGGTAACTCT 100
5 TTCTTAGTTC TTTGGACACA TCCG 124

(2) INFORMATION FOR SEQ ID :1031:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 237 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1031:

TTTTGCCAAG TATATGTAGT GCAAATATTT TCTTTCAGTC TGTAGCTTGC 50
20 CTTTTTATTT NTTAATGGGT ATCTTTAAAA AAATGGAAGT TTTAAGTTTG 100
AATGGAATTC AGTTTGTTTT TAAAGCTTGT GCTTTTGTG TTCAACTAAG 150
25 GGATATTAGC TTACCATTTT TCTCGGTTGA ATATTATGTG TTTATAGACA 200
AGAAATGGTC ACTAAAGCAA AATAACTGAA AATTATC 237

(2) INFORMATION FOR SEQ ID :1032:

30

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 147 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1032:

40

ACAGCAACCG GCACTCACTT GGAATCCCAG TGTTCGAGT TCTAAGGCCA 50

524

CTGAAAACCA TCAAGCGCTT GCCAAGCTCA AGGCCATCTT CGACTGCGCA 100

GCGACTTCCT TGAAGACTGT TTTTAACATA CCAAAGGAGG ACAAGCT 147

5 (2) INFORMATION FOR SEQ ID :1033:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 238 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double.
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1033:

AGGCCTGCCT ACCGTAGGTC TCTCAGAGCC TTTACTCTAG TCACTCTTTA 50

20 GAGGGGGGCA CTAGAAGCAA TATCTCCGAA ACTTCTTCGA CTGTGCGAGAC 100

TTTTTACTCA TAATTCGCTT CAAGCCAACT ACGGAGGCGC ATTTACAAAA 150

CTGAAATACG AGCGACACCC CAGGAACGCA CGGAGACATG ACGCCCTTAA 200

25 TCCTCTGTCC CTA CTCTCCCTC TCCTAGGACA CCGCATTA 238

(2) INFORMATION FOR SEQ ID :1034:

(i) SEQUENCE CHARACTERISTICS:

- 30 (A) LENGTH: 63 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1034:

TCCATGNCTC NTGGTCTCTG TGCNCTTGNC AGGGGCATGC CAGGGCCCTT 50

40

GGACTGTGCA GGG 63

525

(2) INFORMATION FOR SEQ ID :1035:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 180 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1035:

CGACCGGCGC TCAATGGCGA AATTCCGAGC CAGAGCTATT GGTGAATGA 50
GTAGCGCTGA TGGTTTAGAT AATAACTAGT ATGGGGATAA GGGTGAGCAG 100
GCGCGCCTTG AGGCAAGAAG CGGGTTAGAG CATCTCTACT TAAAAGCCA 150
AAGCCTATAA CGGTAGCGTC TACATCACGA 180

20

(2) INFORMATION FOR SEQ ID :1036:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 142 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1036:

CCAAATACGA TGACATCAAG GAGTCGATCC GTCAGCGTGA CTTGAATACA 50
CCACCGCCGA CGACCCGAAA GCCTGATGAG GAGAAGTCCA GAATCAGGAA 100
CAACGGCGAC ACTCGACTAA CCATTTTAAA CCAATTGGAA CC 142

40

(2) INFORMATION FOR SEQ ID :1037:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 95 base pairs

526

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1037:

CCACATGGAG TGACCTGGGC CTCTGCAAGA AGCGCCCGAA GCCTGGAGGC 50
10 TGATTGTCAA AGCAGGGGGC AGGACCCGGG GGCAGGAGAA ACCAG 95

(2) INFORMATION FOR SEQ ID :1038:

- 15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 195 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1038:

25 ATTTTATTGT AGTAAGAATA ATACATAGAA ATAACATTAA ATAAATATGT 50
TTGACAAAAA CATAACACA TAGTACAGGT AGAACATATA ACTGGTTGAT 100
GCTAAATAAC AGATCCAGAT AATTTTCAAT TTGAATTAGC AGCAGGGAGT 150
30 CATTGAATGC TATGCCCTTA GAATGGCTTG CAGGCTTTCA CGAGT 195

(2) INFORMATION FOR SEQ ID :1039:

- 35 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 218 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

527

(xi) SEQUENCE DESCRIPTION: SEQ ID :1039:

	GGTTGTCAAG AAAATGAAAG GTAAAGCTCA GAAGGGATAA GGGAAGACAT	50
5	TACAGAATTT ATCATCAAGC AGGAGGTTTT TTCCAGGTC TAAGATGAGG	100
	TTAAGTTTCT TAACAAAAGA ATAAACAACT GTGACTCTAT CTGTCGGGGG	150
	AGGGTCTAGA CAGAAAAAAT GAATATACCC CAAAAGGCTG AAAAAAAAAA	200
10	CGAGACTTTG ATGGAGAC	218

(2) INFORMATION FOR SEQ ID :1040:

15	(i) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 318 base pairs
	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: double
	(D) TOPOLOGY: linear
20	

(xi) SEQUENCE DESCRIPTION: SEQ ID :1040:

25	TTTATTATTT TGAATGATTT AATGGTTTTT TACACAATTT ACATCACAAC	50
	ATGTAAATTT TAGCAGTAAC ATCTGATTCT AACAGCACAT CATGCTATTC	100
	CTTTCATAGA GCCTTCAGAG ATTCAATGCT AAACAAATTT CCTTAGTTGG	150
30	CATCAAGGCA CTGATCACTT TAGAGGCTTT TAAGAAATTA TTAAAGATG	200
	CAAATGCCTC TGAGTGAAGT GTACTATCCC ATCACTGAAG CCCACAGGAA	250
35	CAAGTCCTAC AATTTTAAAA AGGCTCGATG GAAAAATTC TCAATCCTGA	300
	AATCCCCTAG GGAAGGGG	318

(2) INFORMATION FOR SEQ ID :1041:

40	(i) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 199 base pairs

528

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1041:

ACGTACCGAG CCGTCGTCGC GGTGCTTGAG CTTGAAGGCG AGATAGCCGA	50
10 TGCCGCCGAG GCGGTGGACC GCATCACGGT GGCCTGACG AACGCGAGAT	100
TCAGCAGCAG CGATGCCATC AATAGCAGCC TGATCGGACG CATGACCGAC	150
15 TCTCCCTGTG AGCGGAGGTT GGGGGGCCGA TCTCCGCCG GTGCCGGGC	199

(2) INFORMATION FOR SEQ ID :1042:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 300 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1042:

GCCTCTAACA AAAGTAGGCT GTCCCGGACC ATGTAATAG AATTGTTTAC	50
30 CTTTATACCA AGAAGGTTGG GAAAGCACCA AAATCTGCAT GTGGTGTGTG	100
CCCAGGCAGA CTCGAGGGG TTCGTCTGT AAGACCTAAA GTTCTTATAG	150
35 ATTGTCCAAA ACAAGAAAC ATGTCAGCAG GGCCTATGGT GGTTCATGT	200
GTGCTAAATG TGTCGTGAC AGGATCAAGC GTGCTTTCCT TATCGAGGAG	250
CAGAAAATTC GTTGTGAAAG TGTTGAAGGC ACAAGGCACA ATGTCTGGAA	300

40

(2) INFORMATION FOR SEQ ID :1043:

529

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 170 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1043:

10

GAGACCAGTC TCAAGTGGGA GGGGCTGATG GTGGGAAGCC CTAGAAGAGA 50

GTCTGGGATG AAGCGGCCTC CTCCTGTCT TCCCTCCAA AATTGAGTCT 100

15 GGCCTGATTC CTTGAGGAG CAAATTTTAC AATCATCCCT CACCCTAACA 150

CACGGTGAAA CTGAAAACC 170

(2) INFORMATION FOR SEQ ID :1044:

20

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 260 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1044:

30

GGCCCCCCT GGGGACTGCT GGTTCAGG GGCCACCCC CCTCATCCAA 50

AAGAAGAATC AAGTTTTGTT TTCCTGTGGT TCCCTTGCTC TCCCGGCCT 100

35 CACCTCGAGC TTCACTTGG GCCCTTCCC ATGCTTCTAC TTGAGCCCCG 150

CCTGCCTCAC CGTCTGCCTC ACCGCCACCT CCTGCTCAGA GTGAGTGCAT 200

GCATGCCAGA CAGATACACA TATACATACA CACACACACA CACACCCTAT 250

40

TTTTTTTTTT 260

530

(2) INFORMATION FOR SEQ ID :1045:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 164 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1045:

AAATCTATAA TTTTAAGGGC TTAACCTGTG ACTTTAATAA GCTGGAACAG 50
15 TCCACTGAAT GGGTATAATG AATTGCAGTA TATACGTATG ATCGCTTTTT 100
AAGTGATTAT CTTTCTTTTC GTTAAGTCAT GTAAATTCAT AAATTTTTTG 150
GCACTGATGT GTTG 164

20

(2) INFORMATION FOR SEQ ID :1046:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 130 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1046:

TCCCTCCTTT CCGAACTGGA GCCCCATCCT CTCCAGAGTA TCCAGGGCTT 50
35 CTTCACTCCC GGGTACCTGC CCTTCGGCCC CTTTTCACCA CAGCTGTGCT 100
ACTGTCAACC AGTCTTTGCT GCATAGGCAT 130

40

(2) INFORMATION FOR SEQ ID :1047:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 285 base pairs

531

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1047:

10 GCTTAACTGG AAATTGGAAG GGAAAAGAAG AAGAAACAAT GTAATGTAGC 50
AGTGGAAGCA AAATTCTCAC AATGAATAGC AGTCTTTCCA GCTTCTTTGA 100
CACGGATTTT CTCATTAGAA AAGACGACTC TCCTGAACTA GGGATGAGTG 150
15 TGAATCTCCA TTCGAGGAAG GGAAGAAGA GCTCGGAGGG TGACAGCCTC 200
CCCCTGAGAG AGCCAGTTGC GTTCATGATT TTGATTCCTT CTCCTCCTG 250
ATGAAGTATC TGCCCAGGAG CCCAGGAGCA GAATA 285

20

(2) INFORMATION FOR SEQ ID :1048:

(i) SEQUENCE CHARACTERISTICS:

25 (A) LENGTH: 233 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1048:

35 TAAAACTGAC CTAGAAGCTA TCAGCAACCA CAAAGAGACA GAAGAAAAGA 50
CTGCTTCTGA GGCTCTCTCA TGGAACCTAC TGATGATGGT AATACCACGC 100
CCAGAAATAA CGGAGTCGAT GATGATGGCA ATGATGACGG CGATGATGAC 150
GGCACTGATG ACCCCAGGCA CAGCGCGAGT GATGACTACT CAACACGAGC 200
40 CAGGTCTTTC TGAAGGCCGA GAGAGCTAAA TAA 233

532

(2) INFORMATION FOR SEQ ID :1049:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 293 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1049:

ACTTTAATT ATTTCGGATG CCGGAATTGT GCCCAGAGTT TCTCCTGAGC 50
15 TTGATTCCAT AGCTAGCAGC TTCAATCCTT CGCAGCTGCG GTGCGTTCTG 100
AACTCTGAGC TGTCCTTTCC TGACAGGCAC TTTCCATAGC ATCTGCCTGC 150
TTAATTCCTC ACGACTCAGA AATGTTAACG GCACTGTCGA GTGCTGTGAT 200
20 CATTTTGCTT TAACTATGTA AAGCTTTATG CCCTTCGAGA AGCTTATTTT 250
GAGATAGAGC TAGAGAAGAA AAGCAGCAAA ATTCGGTCGA TAC 293

25

(2) INFORMATION FOR SEQ ID :1050:

(i) SEQUENCE CHARACTERISTICS:

- 30 (A) LENGTH: 219 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1050:

AAAACTATAC TTTCATTCAA AAGAAGAGCT GAATTGATGC TTGAGTTACA 50
GCACAAATCT ATTATTAGTG AATGAAGTAT ATTCTTGGCA GATAAATACC 100
40 AGATCAAAAG TCCTGTTTCA GTAATTGAT TAACTGTAG AATACTAAAA 150

533

AATAAGTTAT TTCTACAGAA ATCTTTGAAG GGAGCAAAAA ATCAAATCAC 200

AGTATATACC TAATGGCTA 219

5 (2) INFORMATION FOR SEQ ID :1051:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 70 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1051:

AGCGACCGGC GCTCAAGTGG AATCCGTGC AGTGTTTGAT TTTTCGTTTT 50

TGCGATAGTT TACTGAGAAC 70

20

(2) INFORMATION FOR SEQ ID :1052:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 204 base pairs

25 (B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1052:

ATTCCTGACC TGTGATATCG GCCATTAGAG CCTTCAAGA ATGGTACCTC 50

35 CTGCCGATGA TTTTTTTTAA AGCCTTAATG AAGAGAGTGT CCTCTGACTC 100

CTCCAGAGA AGATAGGATG TGAGTGACTA AGTTATGTAT AATAATTTTA 150

TCTCAAAATA ACCACGTCCT TGATACCATT CCCTGTATAC CAAGGAAGGG 200

40

TATT 204

534

(2) INFORMATION FOR SEQ ID :1053:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 252 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1053:

ACTAAACACA GCACTGAGAA TTCTCCTCTT TTTACAAAAA TGACAGACTT 50
15 AAGAGAGGGC ATGGAACAGA TTAAGAGAAT TAACACGGAG AGGAGAGCAG 100
AGGTATAAAA GGTATCCAAG AAAAGTAAAA CATACAAAGG CAATTCAAAT 150
CAAAGTGAGC ACTGCCTATA TACAGACAGA AAGCGAGTCC TCTATGAAAC 200
20 CATACCCGAC AGAAAGTACC GGAATACCAC CGACACTGAT GTCTTCCAAA 250
CG 252

25 (2) INFORMATION FOR SEQ ID :1054:

(i) SEQUENCE CHARACTERISTICS:

- 30 (A) LENGTH: 212 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1054:

AAATCAGGAA ATTGTACATG TTAACAAAAT AGTATAACCA TGCATACATA 50
CATCTGCTTA TTAAACACTG AAGTAAAAGA ACTAATCCAG TTTGCACTCT 100
40 TTAGAGGTGT TTAGTATTTC ACTCCGTCTT GATGGAAGCA CTTTGAATGC 150

535

TTGCATGGAG ACATAAACT GAATATTAA TTGACAATAG ATCATGCGCC 200

TGTATTATA AA 212

5 (2) INFORMATION FOR SEQ ID :1055:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 152 base pairs
- (B) TYPE: nucleic acid
- 10 (C) STRANDEDNESS: double.
- (D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1055:

ATAAACTGTG CTAATAAG TTTTATTC ATCAATATAA AAGCTGTAA 50

AAAACTGAGG AGAAAGCAGT TGCCAAAAG ATGAAAGAAA AACACATAG 100

20 AAAACCTTTA AAACAGGCAA AAGTCAGTTC ATAATAAGT AACTCATCTC 150

AC 152

25 (2) INFORMATION FOR SEQ ID :1056:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 205 base pairs
- (B) TYPE: nucleic acid
- 30 (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1056:

AACAGATCCT CAGTTTCTCT GGAGACACCC CCAATTCTCG GGTGAGTGT 50

GAAACCTGAC AACTGACTGT TAGCCTTGTC ATCATCCTCA TTGGAGATGG 100

40 AGATGTTGTA GTCGGAGCCT CATTCCTTCC GGGGCACTGT TTCTTCTAAT 150

536

GGCAACCATC AGAGCCTGTC TGGAAACAGC CTGCTGCCTT TGCTAGGGGG 200

GCAAA 205

5 (2) INFORMATION FOR SEQ ID :1057:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 174 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1057:

GAGAGAAGAG CGCTTTTCTG GGCTCTTGGT TACTCCGTCA GAGACTTTGC 50

CCTTTGTCTG TTAAATACA CTGGGAGCCA GAGCTGATTC CCCACCTGCT 100

20 GCTGTGGTTT TCCGCTTAAC ACAGGAGAGA AGAGTTGGTC TGGTATATTT 150

GATAGCAGGT TTAAATGA ATCC 174

25 (2) INFORMATION FOR SEQ ID :1058:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 125 base pairs

(B) TYPE: nucleic acid

30 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1058:

TATTTGATGG TCCATAAGAC TTTGTCAAAT GTAAACCTAC AGTTTGATAA 50

GCTTTAAAT ACCATGTTGA CAGCATTTTG AATTGTTCA TAGACGTACT 100

40 TATTTAACTG ATGCGAACAT TCACA 125

537

(2) INFORMATION FOR SEQ ID :1059:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 205 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1059:

TTATCTTACA ATTCTACTTC CCAGCATCCT GAAATTTTCA AATACTGTCT 50
15 TAGTATATTA AACTCTTTTG AAATAGATAA CAAAAGCACC ATGGGAGTCC 100
GTTGAAAACT TAGGTTTGTT CCTTCTAAAA TTTCTAAGTC CTCATTATG 150
ACTATAAAGA AAAAAGGTTC ATCAATTCAA AAAAAAATCC TGATTCTTCA 200
20 AAATA 205

(2) INFORMATION FOR SEQ ID :1060:

25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 249 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1060:

35 ATCTCACAGA TTCTTTTTC A GATTCATT CATGTTGAGT GAAAGAAGCC 50
AGATGCAAGA GTCCACACCA CATGATTCTG TTTCTATACA ACTTAATTG 100
AAAATAAGC AATACTTACA GAAGTGAGAA TAGTAGTTGT CTCAGGGTAG 150
40 GTGAGTGTCA TGAAGGGAAT CTTATACGTT TGCTAAAAAT GTTTATAAT 200

538

ACTTGGATTT TGGGTCTA 3CTGGCAGG GGAAGGGTA CATTGCAAA 249

(2) INFORMATION FOR SEQ ID :1061:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 200 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1061:

15 TAGCACATTG CATCCCAAGA GCTGTAGTCA AAATCCTCAA AATCTGATGA 50
AAATGGCATA CTACACTAAG GAGGATTTTT TGGGCATTTT CCATTCATAT 100
GCAGAATCAG TGGTTGAAAA AGGAGAAAGA GAGATTTTCT TTACAAAAGC 150
20 TCCTGACCCC ATTAACATCT TATCTATAAA TCTGATATGT TCCTGACTCC 200

(2) INFORMATION FOR SEQ ID :1062:

- 25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 200 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1062:

35 GCGCACAGCT GAGAATCTCC GGTCTTGTCT CACTTTGGAC TGGGACAGTG 50
GATGCCCATC TAAAAGTTAA GTGTCATTTT TTTTAGATG TTTTACCTTT 100
ACAGCCATAG CTTGATTGCT CAGAGAAATA TGCAGAAGGC AGGATCAAAG 150
40 ACACACAGGA GTCCTTTCTT TTGAAATGGC CACGTGCCAT TGTCTTTCCT 200

539

(2) INFORMATION FOR SEQ ID :1063:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 246 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1063:

TATCAAATCA TGAGTTGAAA GATTTTGACT ATTGAAAACC AAATTCTAGA 50
ACTTACTATC AGTATTCTTA TTTTCAAAGG AAATAATTTT CTAAATATTT 100
GATTTTCAGA ATCAGTTTTT TAATAGTAAA GTTAACATAC CATATAGATT 150
TTTTTTTACT TTTATATTCT ACTCTGAAGT TATTTTATGC TTTTCTTATC 200
AAATTCAAAT CTCAAAATCA CAGCTCTGAA TCTTAGAGTA TCATAA 246

(2) INFORMATION FOR SEQ ID :1064:

25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 170 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1064:

CCCTCATGTG CCAGTTCGGT CTGCCTGCAG AGGCTGTGGA GGCCGCCAAC 50
AAGGGCGAGT GGGGAAGCGTT TGCAAAGCCA TGCAGAACAA CGCGCAAGTT 100
TGAGCAGAAA GAGGGCGACA CGAAGGACAA GAAGGACGAA GAGGAGGACA 150
TGGAGCCTGG ACTGAGCCAC 170

540

(2) INFORMATION FOR SEQ ID :1065:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 171 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1065:

CTCTCCCCCA CAGGTTCTCA GCAGTTACTA AGATGTCCCC TGATTTCATT 50
15 GACCTCTGTG TGTCTTCAGT CCTTGACCCT TTAAGGCTCC CTGGTGCCAG 100
AATGTCTGCA GCTGTAGGAT CAAAGACCCT TGGGGGAAAA ATCCATTCTC 150
AAAAGAGAGG AAGATGGGGT G 171

20

(2) INFORMATION FOR SEQ ID :1066:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 201 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1066:

GAGTCTATAT CCCTTACTCA GTGCAGTTCT CAAAGTCCTT TGTATGTCGT 50
35 ACAGGATCAC ATCTGTACAT ATCACACTCT TGTGGGGTAA GCCCAGAAGC 100
TCATACACAG CTTTCATGGGT TTA CTTTCCC AAGCACTTCC TCCCTCCCTG 150
CAATATCTCC CCAGCACTTT CTGCTTCCTA TCAGCTTTCC CCTTTTTCAA 200
40 C 201

541

(2) INFORMATION FOR SEQ ID :1067:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 151 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1067:

ATCAACCGGA GGTGAAATGA AATACCGTCA ACCTGTGCAT GAGTTTGTGT 50
GAACTGAATG TGTGTGCATA CACATAAGCA TGTGTGCGAG CGCAAATGTG 100
GCGTCTCCAC AGCATGCGCA ATCCATGAGT CTGTTTCTAA CGCGCGCGCG 150
C 151

20

(2) INFORMATION FOR SEQ ID :1068:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 273 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1068:

ACTGTGTCAT GTCAGGTTAG ATCTGAATCT CTAGGAGAAT AGCTTTTTTG 50
ATCTGTTTGC TCCTTTGAGT CTCCCTTTTA CTTTACAACT AGAAAACCAA 100
TCGCATACTT CACTTCTATC GCTTCCAGAT ATGGCATATT TTTCTTAGGC 150
TACCGTTGAA ATTTAGCATA ATATTTCTCC CTTACCTTTA CGTCCTTTTA 200
AAAAAATAGG ACTATAGTAA GTCCTCCGTG TCGGTGGCAT GTTTTTGGAA 250

40

542

ACTGACTTTA AAGAAAACAT ACA

273

(2) INFORMATION FOR SEQ ID :1069:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 189 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1069:

15 CAATCTTGCT TATAAATAA GAACACCTTT CAATTAAGTG AGTGGGTCAT 50
TCCTGGTGCA ATTGTGATTT TTTTITAGCC AAAATGAATG GCAAACCTCA 100
TTTAGAGCAA AGTAAGTATT AGAAAACCCT AGGAACTCTT AATCAACGTT 150
20 TATTACACTT TTATAAAGGC AACTACGCG AAAGAGCCC 189

(2) INFORMATION FOR SEQ ID :1070:

- 25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 280 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1070:

35 TTTATTCCAC TGGAGAAAGG GGATTGAAAA TCAGTTAGAA CCAATGTATT 50
TCTTGCCCCA CGGAACACTA TTCCTATAAG ACAGCTGAAA GAAGCTGCCG 100
TGAGGAGCTC AGCTCCAAAC ACAGGATCAG CACCTCGCAT AGGAATTCCC 150
40 ATGAATCACG ACTTCTCATC CCGTTTATC AGAGTGCATA TACGTCCTAC 200

543

TTAAGGAAAA GTAAAACAGT CATTTACGAA AGAAAGTCAA TCTGTATCCT 250
AAGCATTTTA ATAAAAAGTC AGAAGGAATT 280

5 (2) INFORMATION FOR SEQ ID :1071:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 193 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1071:

AGAACCGAAG CCTGCAGAGA GGCCATTCTG ACAGGCTGGG AAATGTAGCC 50
TACCGCCAGA AGCTAGAAGC AAGCACTTCC TCCTAACCGA GTTTTTGAAA 100
20 GACTAAGGGA AAGAGAATAG AGAAGGGATA TTCCCATCTA CCGGGGAAAA 150
GATGCGCAGT AACAAACCAT CTAGGGAGAC AGCCTTCTAA CAG 193

25 (2) INFORMATION FOR SEQ ID :1072:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 175 base pairs
(B) TYPE: nucleic acid
30 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1072:

AAAGCACCTT CCCCTCGCTG AGCTCCAGGG GGCCCAGATA GGCCACGCGC 50
AGCTCCAGCA TCTTGGAGAG CTGCACGTCA TCTGCCGCGT CGTAATCCTC 100
40 CACTCTGCAG CCATAGGCCC CACTCTGGCC CCGGGTCACT CCCTCCAGGG 150

544

TCAAGTTCCC CTCGAGATTC ACATC

175

(2) INFORMATION FOR SEQ ID :1073:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 339 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1073:

15 AGTGCCCTAC TCTTTTCCCA AGAAGGGTCA AAGCCTACAA TATCATCAGG 50
GGGCATGAAG CACATTAATT TGCAGTGGCT GCTTCATATG AGGAGGTATG 100
GTGGACAGGC TAATTTTTC TGA AAAATGT GGCTTCTTCA ACTCCTTTCA 150
20 AATTTAGGAT GGAATACTTC CTGAAATAAA AACGGGCTT TATGCAGGAT 200
TCTCTTTGAA AATTCTTGTA TGTCCAGAAC AAAAGATAAA ACTAATTGTA 250
25 TTCCTCACAT TCACAATCCC CATTGGTCTG AAGTCACGTG ACACAGAGCA 300
TCTATATAGC ACATAGTGTT TAAAGACTAA TGAATGCAA 339

(2) INFORMATION FOR SEQ ID :1074:

30

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 172 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1074:

40

ATTAATTATG CGGTCTCCT CCTGGCAGCT GGACACCACT TTGAATCTTC 50

545

CTTTGAGCTC CGGAAAGTTG GTAATTACAA CTTGATATTT CTACATGGAA 100
ATCAAGAAAC TCGGACCCAA CTTGGTGCAA AGACGGATCT CCGCCGATTC 150
5 TGACGGCTCT CCAGGTTTTG TC 172

(2) INFORMATION FOR SEQ ID :1075:

(i) SEQUENCE CHARACTERISTICS:
10 (A) LENGTH: 299 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1075:

AGAGTAGGAA GAGGGAGGGG AACAGGCATC TAAGATAGAC TTTCTCCATC 50
20 TGTGGGAGC CTGGGCAAGT AGGAAAGAAG CCTTTTTCAT ACACTTCAGT 100
CGTATGACTG AGCTGCTTGG CAGGGCACTG GAAACGACGA ACTCGCGCAG 150
25 CCTGCAAATG AGACCACTCT CATTCTCAG TTTCGATTG ATTCACTCAC 200
TAGTAGTTAG GTAAATACGA GCTCTATGTG ACTCAAGGAA TGTCAGGCTG 250
GGGCAGGTGG CAAAAGCTAC AGTGATCGAA ATTCACGTTG CTA CTGATG 299

30

(2) INFORMATION FOR SEQ ID :1076:

(i) SEQUENCE CHARACTERISTICS:
35 (A) LENGTH: 283 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1076:

546

	CCCCCTCATCG GCGATACTGG AGGTTGCGTT TCTCAACCCT GTGGGCTTCA	50
	CCCCAGACAC GCCCTGAATC GTTTCATGTT CCAGCATGCC TGAGACAATC	100
5	ATCGACTGAA GGATGTTCTC TAACACCCGC ACGAGCTGCC GGCAGATCTG	150
	AATGCCCAAG TCACTCAGCA CCTGCCGATA CTCAGCCAGG TCAAAATCGG	200
	CGAGGTAGTG CTCATGCCTG GCGAGACGTG TTGTGCTTAA TGAAGCCCTA	250
10	TCATTGGAAG TATTGCTATG AGCAGTGC GA AAA	283

(2) INFORMATION FOR SEQ ID :1077:

15 (i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 297 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1077:

25	ACCAATCAAG TACACTAAAT TAGAATATTT TTAAAGTATG TAACATTCCC	50
	AGTTTCAGCC ACAATTTAGC CAAGAATAAG ATAAAACTC GAATAAGAAG	100
	TAAGTAGCAT AAATCAGTAT TTAACCTAAA ATGACATATT AGAAACAGAA	150
30	GATATTACGT TATGCTCAGT AAATAATCAA GAGATGGCAT CGCGTAAGAA	200
	GGAGCCCTAG ACTGAAAGTC AAGACATCTG AATTTCAGGC TGGAAACTA	250
35	TCAGTATGAT CTAAGCCTCA GTTCTCTNGT CTGCAAAATG AAAGCAC	297

(2) INFORMATION FOR SEQ ID :1078:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 291 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

547

(D) TOPOLOGY: linear

5 (xi) SEQUENCE DESCRIPTION: SEQ ID :1078:

AATCTTTTAA TCAATCGAAA CCTTAATAAT TAGGACTGAT AATAGTGATC 50
AGTGATTGAA CCTTTATTAT TTACCAGCTA ATATAGTAGG CCCATAAATA 100
10 GGTTATATCA TTCGTAGTCA CAATAACCAC ATACATCACA CACCATGACG 150
TAGCGCTACT ACCCATACCT GCTAGCAGTC AAGGTCAGA TAATCATAAC 200
15 ACGCCCAACA TCTCATTGAT AGTGAGTTAT CCAAACAGGA ACAATCTCAA 250
GTTTATATCT AAAGCCCATG TTCTTTTGCT TAATATTAGA G 291

20 (2) INFORMATION FOR SEQ ID :1079:

20

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 136 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID :1079:

30

AGTCACAGCC CCTATACTCC CTCTACACAT TAACCACAAC ATAAGCGGGG 50
CTCACTCACC CACCACATTA ACACCACGAA ACGGGTAATC TAACACGAGA 100
35 AAACACCCTA ACGTTCATAC ACCCCATACA CCATTA 136

(2) INFORMATION FOR SEQ ID :1080:

(i) SEQUENCE CHARACTERISTICS:

40 (A) LENGTH: 300 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double

548

(D) TOPOLOGY: linear

5 (xi) SEQUENCE DESCRIPTION: SEQ ID :1080:

	CCAAGGTCGC CTGTGTGCTA GTCACGACCA TTAGGATCCG AAGAAGAGAT	50
	GATGACTACC CTAAAAGTAA GGTCTGTGAA CAGCCTGTAA TGGGACGTGA	100
10	GCTGCGGTAT TAAAAAATC AAGAATGGAA GCGTTCCTCA ATTGTCGTTG	150
	AGAATCATAC CAACACGCA GATGCAACCA TGAAAAACGC AGCTGCGTAT	200
15	CGCGCGTTTT TCATGGTTCG CATCTGCCGT GTATGCAATG ATTCTCAACA	250
	CACATTGGAG TCACGCGGCC TGCCTAAGAG TATGAAGGTC TTCCTGTAAA	300

20 (2) INFORMATION FOR SEQ ID :1081:

	(i) SEQUENCE CHARACTERISTICS:
	(A) LENGTH: 219 base pairs
	(B) TYPE: nucleic acid
	(C) STRANDEDNESS: double
25	(D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID :1081:

	GTTAATGGTT TTTTCATACA TATGAGACTG AGCGGTCAAA GTTTTACTAA	50
	AGTCTTTATG ATCTTTAATT AATACTCCAA GACATCCGAG TTTGGCAGAT	100
35	ATTGGATGAG ATTTGTTTGT CTCCTTACTT TCTTGTATA CAGCCAAGCC	150
	TGAAAATCTC TAGACATTTG CTGAAATTGA TGAGAGCATG CACAGGACGA	200
	CTGAAGGTGC TGGACATGA	219

40

(2) INFORMATION FOR SEQ ID :1082:

549

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 360 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1082:

10

ATTTTGGGAA AGTGAGCATG AAGAAGGGAC TCAGAGCTGC CAGGTACCCG 50

AGTCTCAGGC TCTGACATCT CTTGGGGCCC CTTCTGCCA CAACTTCTTG 100

15

CCACTTCACG GACTTGAATT ATGTCCCGCG CCTAAAAAA AGATTGGCCT 150

GCAGCACAGG CGTGTATCCT CTCCAAAAAG CTGCTGCTCA TTTCTGGCCC 200

CATCTGCTGC TATCTTTGCC AGTCAGCCAT CACAGTTTG CATCATCAGA 250

20

GTCTCAGCTA GAGGGAGCGT GTCATTCTG CTTAGTGGT TTGCCTGCGA 300

CCTGACCAGG GCAAGACCAG CTGGGATGTC AAGTGACATT TTGGGAACCT 350

25

GTCGGAAGTT 360

(2) INFORMATION FOR SEQ ID :1083:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 250 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

30

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1083:

CATACATATG AGACTGAGCG GATCAAAGTT TTACTACAAG TCTTTATGAT 50

40

CTTCAATTA AATACACTCC AAGACATCGA GTTGGCAGA TATTGCGCCC 100

550

GCCGTTTTGC TCTTCTTATC TTTGTATCCA GCCAAGCCTG AAAAGTCTCT 150
AGACATTTGC TTGAAATTTG ATGAGAGCTT GCACAGGCCG ACTGAAGGAT 200
5 GCCGGACATG ATTCTCTGCT TTCTGGTTCA ACAAAAAAAA AAAGTTCCAG 250

(2) INFORMATION FOR SEQ ID :1084:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 261 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
- 15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1084:

TNCTAGATAC NTCCCTCTGT CTCACATTCA TAGTGTGTTC TTGTCTAGTG 50
20 TATGAAGTCT CACNCAAGGA AAGGTNCAG GCAGAGTTTG GGGAGAGTGA 100
AAAAAGTGAA TGGCCTATAT NTGCTCTNTT GGGTGNTCCA NCCATTATTG 150
25 GGGTGAACCC TTTCAGCTTT TTCCTAAAAA TTTGAAAAGA NTTTTTTAAA 200
AAATTAAAAA GAGGATTTTT AAAAGGAATA TCTGTTCAG AATTNTTAA 250
GTTTTAATAG G 261

30

(2) INFORMATION FOR SEQ ID :1085:

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 260 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1085:

551

GCAATCCATA AGTGTCTTA TCTACAAAGT GAAAAGTTGG ACAAGATATT 50
CTTCATGATC TTTTTCGATT TTAAATGTC ATGCAATTTT AGAGAAAAGC 100
5 TGAAGGGTCA CCCAATATGG CGCGACACCA AAAGACAAAT ACGAGGACAA 150
TCACTTTTTT ACTTTCCGCA AACTATGCCT GGACACTTCC TTGGCGAGAC 200
TTAATACACC AGACAAGAAC AACTATGAA TCGGAGACAG AGGGAGACAG 250
10 AGGCGAAATA 260

(2) INFORMATION FOR SEQ ID :1086:

15 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 213 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1086:

25 AACACGTGGA TTGCTGGAA GACACGGATT TCCTGGAAGA CCTGGATTTT 50
TCGGAAGCTA TGGATTGAG GGAAGACAAG GATTTTCTGG AAGACATGGA 100
TAATCTGGAA GACATGACTT TGTCGGAAGA CGTGGACTTG CCGGAAGACA 150
30 CGAATTTTCT GGAAGACCCG GATTTTTCGG AAGCTATAGA TTTAAGGGAA 200
GACAAGACGG ACT 213

35 (2) INFORMATION FOR SEQ ID :1087:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 256 base pairs
(B) TYPE: nucleic acid
40 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

552

(xi) SEQUENCE DESCRIPTION: SEQ ID.:1087:

5 TCCCAGGCAC CCGCTGAATT TCTGAGGCCT TGCTTAAAGC TCAGAAGTGG 50
TTTAGGCATT TGGAAAATCT GGTTCACATC ATAAAGAACT TGATTGAAA 100
TGTTTTCTAT AGAAACAAGT GCTAAGTGTA CCATATTATA CTCGACGTCG 150
10 ATCATTCTC AGTCCTATTT CTCAGTTCTA TTATTGAGA ACCTAGTCAG 200
TTCTTTAAGA TTATACTGG TCCTACATCA AAATAATAGA AATTACGTTT 250
TTTTTT 256

15

(2) INFORMATION FOR SEQ ID :1088:

(i) SEQUENCE CHARACTERISTICS:

20 (A) LENGTH: 264 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1088:

TTGCTTAGAA CGGAGCTAGC AAGACAAAAA TACTTCAGTT GGCATCTCCC 50
30 TTAAAGCACA TCCCCAAACG CGGGTCCTGG CCCCAGACAG GGAGACCAGG 100
GCTCTGACAG TGACAGGTTT TTCCCTCTGA AAAAAGAATA GAAGAGGAGC 150
TCCTCCCTAA CCCACAGATT CCCAGGGCAG ACCCTGGGAG GAGGTGCTGA 200
35 AACACAGAAG AGAGTGTGTC TTCCCCAACC TCTACCAGAC AGTAGAGAAA 250
CTGAGGCGAG AGGC 264

40

(2) INFORMATION FOR SEQ ID :1089:

(i) SEQUENCE CHARACTERISTICS:

553

- (A) LENGTH: 157 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1089:

10	GACCTGGAAT TTGTTTTCGT CTGTTTCAGTA GACTCCGATT TCAGAATATG	50
	TCGGAATTTC AGACTCCGGA ACTTTTGAGA ATGTCATTAC AGGAACTTTG	100
	TTTACATACC GAGCTGTTAG CCCAGTCAC TGGGTCCGAA ATTACGCCGA	150
15	TACCGAC	157

(2) INFORMATION FOR SEQ ID :1090:

- 20 (i) SEQUENCE CHARACTERISTICS:
 - (A) LENGTH: 366 base pairs
 - (B) TYPE: nucleic acid
 - (C) STRANDEDNESS: double
 - (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1090:

30	GCATATACCA AAAAAGGACA AACAGATAGA AGAGTCATCT CAGTGTGTAA	50
	CGAGGAAAAG ATTTATCTCC CATCCTCTGA TCCTCCATAT GATATCTGAT	100
	AGCGAAGATG ACAATAACCC CTGACTCTT CACGAAACT CGATGAGAGA	150
35	GAAACTTGAA AAGTCAGAAA ATAAGTTCAT ACCGCAATTA ACCTTTTGGT	200
	CAAGTAATGG AACTTTTGA CTACTAGTGT AAGTCAAAG ACAAGGACT	250
	CCAGCAAGAT GAGAGATTTC TCTATTTTGT AACGAGTAGT CCACCGATCG	300
40	TCATCAAAGA GAGAGAATGA ACAACTACGA AAGTTTAAGG GAAAAAAAAA	350

554

AAAAAACATA GATGTT

366

(2) INFORMATION FOR SEQ ID :1091:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 305 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1091:

15 GGTCTGAATC ATGAAAAAGC CCATAAGAGA GATACAGTGA CTCCAGTTTC 50
AATCATATTA CAGGAGATGA ATCTGTTGCT CTCCCATTTT GCTCTTGTC A 100
CACCATATGA AGACATCAAA AAACACTTAA GGATTCGAGA AAGAGAACAT 150
20 CTTTGTGTTAA AGAAGAGAAT AAGATTTTGG AAGAAAAAGT AATAGCAAAT 200
TTGAAGAAGA AACAGTTAC GTAGGGACGA GAACAAGTAA ATAAGGCCTA 250
25 TCATGCATAT CGAGAGGTTT ACATTGATAG AGATAATTG AAGAGCAAAT 300
GGACA 305

(2) INFORMATION FOR SEQ ID :1092:

30

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 237 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1092:

40

AAATGGAAGT TGAAGTGAAGT GTGGTTTCCA GTACAGGGCA TCTGGCCACC 50

555

TTCACCTCAG TAAATACTGC TGATCGACTC TCTCTGGCTC TGGCTGTCCT 100
GCCAGAGACA GCCAAACACA GGAGACATGA CAAATTACTA TCATCTTTTG 150
5 CTTCTTTATT TTTATTATTA TTATTTTCT TTTTGTGGAG AACAGCGTCT 200
TGCTGTATTG CCCAGCCTGA TCTCAAATC CTGGGCG 237

(2) INFORMATION FOR SEQ ID :1093:

10

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 420 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

15

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1093:

20

AGAAATTTAT TGCCTCACAG TTCTGGAGCC TGGAAGTGCA ATATCAAGGT 50
GGAGACAGGG TTGGTTTCCT CTGGAGGCCA TAATGAAAGC ATCTGTTCCA 100
25 GGTCTCTGTC CTTGGCTTGT AGAAACACGC ATTCTTCTGG TGGATCCACA 150
CAGTCTTCTC CATGTGTATC CTTCCCTCAG TTTCCCTTAT AGGACACCAG 200
TGATGTCAGA TTAGGGATCG AACCCAACAA CCTCATTTGA AGTTACTCAC 250
30 CTGTTTGAAA ACCCTATGTC CAAATACAGT TATAGTGTA GGAAGTAGGA 300
CTTAGGGCTT ACAAATATGG AGTGGGGCAT CATCCAGACC ATACCATTTA 350
35 AATTGCAGGG TTTCTCTCCA ATGTGAGTTA CATAACACA TTAAGGTTTG 400
TGGGATTCAG AAAGGTATAC 420

(2) INFORMATION FOR SEQ ID :1094:

40

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 192 base pairs

556

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1094:

5	GTTTCTTGGG TAACCTCCCC TCCTTAATCC TTCTGGCATA GGCAGACTCA	50
10	CAGCAGGTAC CCAGTAGAAG GTAAGGTGGC TGATCATTTT TCCATAGGAG	100
15	GTCTCCATGG CACACAGGGT AGAAAGTGCA TTCTGTGAAT TAGAGGCAGC	150
15	AGAGCATGGC AGCTAATGGA AACTGGCTCT GGGAGGTCAA AT	192

(2) INFORMATION FOR SEQ ID :1095:

- (i) SEQUENCE CHARACTERISTICS:
- | | |
|----|----------------------------|
| 20 | (A) LENGTH: 228 base pairs |
| | (B) TYPE: nucleic acid |
| | (C) STRANDEDNESS: double |
| | (D) TOPOLOGY: linear |

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1095:

30	AGAGAGCTTA ATAAGACCTA ACTACAGGCA AACCTGACTG GAACGTGAGT	50
	ATCTGTGGTC TGGTGTGGAA ATAGCTCTCT AGCCCCATCT CCCTCCTCCC	100
	ATTGTCCACC CCCATCCTCC TTACCACGAA ACACATTTT CACCAGCATT	150
35	GCCAAACCAC TTGGGATTCC TGCGCATGGC TTTGCTTAGT TTGCTCTTCT	200
	GCTTCTTGGA TACCTCCTTC AGGAAATC	228

(2) INFORMATION FOR SEQ ID :1096:

40

- (i) SEQUENCE CHARACTERISTICS:
- | | |
|--|----------------------------|
| | (A) LENGTH: 198 base pairs |
|--|----------------------------|

557

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1096:

ATTTTTTATG GAAAAAGGGG GATAATGCAA AATAGCAAAA ATTGTAAACA 50
10 AAGTTAAAGA TTATCTTCAT CTAAACCTTA AGCTGACAAT TAAAAACACC 100
TTGTGCATAA TGCAGAAAAA AACTGTCCGT TTGACTTCAC TTCATTAC 150
15 ACTGCTCCCT ACGCATGAGA AAGACCAGAT GTCTGGTTTC AGAGTATT 198

(2) INFORMATION FOR SEQ ID :1097:

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 118 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1097:

TAGAGAGAAG TTGATATATG AAGATAGGGT GGACAGGACT GTGAAGGAGG 50
30 CTGAAGAAAA ACTGACTGAA GTGTCACAGT TTTTCTCTAC AAAACTGTGA 100
CACTTCAGTC AGTTTTTC 118

35 (2) INFORMATION FOR SEQ ID :1098:

(i) SEQUENCE CHARACTERISTICS:

- 40 (A) LENGTH: 138 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

558

(xi) SEQUENCE DESCRIPTION: SEQ ID :1098:

5 AAAAGTGAAGT AAAGTCANTG TGTAATACGA AAACCGAACA CTCCAGCAGT 50
 CCTATTTTAT NTNTTCCAAC CTAGNNCACC CAGGTGACGC NNGGGACTCG 100
 TCNCAGGTGT TTNGNACTTG CCGCCCGACN GGCNAAGG 138

10 (2) INFORMATION FOR SEQ ID :1099:

(i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 151 base pairs
 (B) TYPE: nucleic acid
15 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

20 (xi) SEQUENCE DESCRIPTION: SEQ ID :1099:

 ACTCCACCAC TGGGNCCGCC ATGTTTGGG TNGGNGCAAT GCGCTGTCTG 50
 TGAGCGCCAN TCTAATTGTA TTNGGACTGC ACGGGTCCGT ACACTGACTG 100
25 ACACTGGGCT ACCTCGCCCG AAAATGNGAA CACCGCTCAA TATCGNTGCG 150
 G 151

30 (2) INFORMATION FOR SEQ ID :1100:

(i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 201 base pairs
 (B) TYPE: nucleic acid
35 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40 (xi) SEQUENCE DESCRIPTION: SEQ ID :1100:

 TAGCAATAGG CTATAACATA AGCCGAGGTA TAGGCTACAC TAGCTAGGTT 50

559

CGTGTAAGTA CACTCTATAT TGGCACAACA TAAAATTAAC TAGTGACGCA 100
TTTCTCAGAA TGCATCCCCA TCGTTAAGTG ACACAGACTG TCCCTCATAT 150
5 CACCGGAGGA CTGGNCCAGG ACCTCCTGGC GGCACCAAAA TCCACGAGCG 200
C 201

(2) INFORMATION FOR SEQ ID :1101:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 212 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1101:

20

TAGCAATAGG CTATAACATA TACCGAGGTA TAGGCTACAC TAGCTAGGTT 50
CGTGTAAGTA CACTCTATAT TAGCACAACG ATAAAATTAA CTAGTGATGC 100
25 ATTTTTCAGA ATGCATCCCC ATCGTTAAGT GACACATGAC TGTCCCTCAG 150
TATCACTGGA GGACTGGGNC CAGGACCTGA CCTGGTGGTA CCAAATCCA 200
TGAGGCNGNA AT 212

30

(2) INFORMATION FOR SEQ ID :1102:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 218 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1102:

560

CGGTAGCAAT AGCTATAACA TATAGCCGAG GTATAGGCTA CACTAGCTAG 50
GTTTCGTGTAA GCACACTCTA TACNNGCACA ACATAAAATN AACTAGTGAT 100
5 GCATTTCTCA GAATGCATCC CCATCGTNAA GNGACACATG ACTGTCCCTC 150
AGTATTACTG NAGGACTGGN CCAGGACCTC CCTGGGGTAC CAAAATCCAN 200
GAGTGGAAAT TCCANCAT 218

10

(2) INFORMATION FOR SEQ ID :1103:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 207 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1103:

GTAGCAATAG GCTATAACAT ATACCGAGGT ATAGGCTACA CTAGCTAGGT 50
25 TCGTGTAAGT ACACTCTATA TTAGCACAAC GATAAAATTA ACTAGTGATG 100
CATTTTTCAG AATGCATCCC CATCGTTAAG TGACACATGA CTGTCCCTCA 150
GTATCACTGG AGGACTGGGN CCAGGACCTG ACCTGGTGGT ACCAAAATCC 200
30 ATGAGCG 207

(2) INFORMATION FOR SEQ ID :1104:

35 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 259 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

561

(xi) SEQUENCE DESCRIPTION: SEQ ID :1104:

GGCGTCAAGT GGCCCAATCT AACAGCTCCA GGGTAGCCAC AACCATCGTG 50
5 ATGGATTGCC ATTATTGTGT GCTAGTGGCT AGAGGTAGAC CCAATAGAAC 100
TCTGCCCCAA CAGGGCAACA GCCAAGCTCA ATTCTCCAAG CCCCCTGAAC 150
AGACCTTCCA CATCCAGGAG AAGCTGTTGT TGTCTAGAGC TACTTAGTGT 200
10 CAGAATCCAG GCCAGCTTGG CTGCTTGATG CGACTGGCTA TAGGATTNGN 250
GTGNAGGCC 259

15 (2) INFORMATION FOR SEQ ID :1105:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 230 base pairs
(B) TYPE: nucleic acid
20 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID :1105:

ACATGACCCC TTGGACTGAA GGCGCTCAGT AGTAAAGGAG TGTCATGCAG 50
GTCAACACAT GTCGCACATG GACCACAAAG CCTGCCACCA GCAGGATGCA 100
30 CGGGGACTTC TGGGAGGGGG TGGACAGGAT ACTTATCTGT GACTGGAATG 150
CAGGCGAGAG GCGGAGAAGA GAGTGAAGGA TAACTCATAG AGGGGGCAGC 200
35 ATTTGTTTCG NGTTGAAAGA GGCAGAAAAT 230

(2) INFORMATION FOR SEQ ID :1106:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 163 base pairs
40 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double

562

(D) TOPOLOGY: linear

5 (xi) SEQUENCE DESCRIPTION: SEQ ID :1106:

ACATGNCCTG GACTGAAGGT GCTCAGTTAG TAAGGGAGTG TCATGCAGGT 50
CAACACACGT CGCACATGGA CCACAAATGC CTGCCACCAC AGGATGCACA 100
GGACTTTTGG GGGGAGTGGA CAGGTATTAT TNGACTGGT GAGGTGAGAG 150
GTNAGAGGGG GCT 163

15 (2) INFORMATION FOR SEQ ID :1107:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 182 base pairs
(B) TYPE: nucleic acid
20 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID :1107:

ACNTGATGAT TGCCATTATT GTGTGCTAGT GGCTAGAGGT AGACCCAATA 50
GAACTCTGCC CCAACAGGGC AACAGCCAAG CTCAATTCTC CAAGCCCCCT 100
GAACAGACCT TCCACATCCA GGAGAAGCTG TTGTTGTCTA GAGCTACTTA 150
GTGTCAAATC CAGGCCAGCT TGGCTGCTTG AT 182

35 (2) INFORMATION FOR SEQ ID :1108:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 214 base pairs
(B) TYPE: nucleic acid
40 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

563

(xi) SEQUENCE DESCRIPTION: SEQ ID :1108:

5 CCCCTGGACT GAAGGCGCTC AGTAGTAAAG AGTGTCATGC AGGTCAACAC 50
 ATGTGCGACA TGGACCACAA AGCCTGCCAC CAGCAGGATG CACGGGGACT 100
 TCTGGGAGGG GAGTGGACAG GATACTATCT GTGACTGGAA TGCAGGCGAG 150
10 AGGCCGAGAA GAGAGTGAAG GATAACTCAT AGAGGGGGCA GCATTGTGTT 200
 CGNGCCTTGA AAGA 214

(2) INFORMATION FOR SEQ ID :1109:

15

(i) SEQUENCE CHARACTERISTICS:

 (A) LENGTH: 133 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1109:

25

 ACATGGCCCC TGGACTGAAG GTGCTCAGTT AGTAAGGGAG TGTCATGCAG 50
 GTCAACACAC GTCGCACATG GACCACAAAT GCCTGCCACC AGCAGGATGC 100
30 ACAGGACTTT TGGGGGGGGT GGACAGGTAT TAT 133

(2) INFORMATION FOR SEQ ID :1110:

(i) SEQUENCE CHARACTERISTICS:

35 (A) LENGTH: 156 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: double
 (D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1110:

564

GCATGACCCC ATGGCACTGA AGGTGCTCAG GTTAGTAAGG GAGTGTCATG 50
CAGGTCAACA CATGTCGCAC ATGGACCACA AATGCCTGCC ACCAGCAGGA 100
5 TGCACGGGGG ACTTCTGGGA GGAGAGTGCA TAGGATACTT GTCTGTGACT 150
GGAATG 156

(2) INFORMATION FOR SEQ ID :1111:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 282 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- 15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1111:

20

GGCGCTCANT GGATCCAATA CACGAGACTC CCGGGAGCGA AAACGCCCCG 50
AGGTGCCTCA AAGAACTTAA AACAGAACTG CCATTAGACC CCACAATCTC 100
25 ATNAAGGATG TTATAGATAT ATCCAAAAGA AAATAAATCA TTCTTCAAAA 150
AGACACATAC ACTAACACGT TCATGGAGCA CTATTCACAC AGCAAAGACT 200
CGATCAACTC ACACACTCAT GAATGCGGAT CGAAATAGAA GATGTGGTAT 250
30 GCATACACCA CGAAATACTA CGAGCCATAA AA 282

(2) INFORMATION FOR SEQ ID :1112:

35

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 181 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- 40 (D) TOPOLOGY: linear

565

(xi) SEQUENCE DESCRIPTION: SEQ ID :1112:

TAATTAGTTT AACCACTGTG GAAAGCGTTG TAGGGTCTCA AAGACTNAAA 50
5 ACAGAACTGC TTAGACCCCA CAATNTTANG AGCGGATGTT ATGATATATT 100
CAAAGGAAA TAAANNGNCN TGTNAAAGAC CATACACNAT NGTCCATCGG 150
AGCCCGTATN CACGCAGCTT GTCATAACTA T 181

10

(2) INFORMATION FOR SEQ ID :1113:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 278 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1113:

ATCCAATGAC ACCAGACTCC CGGGAGCGAA ACGCCCGCAG GTGCTCAAAG 50
25 AACTTAAAC AGAACTGCCA TTAGACCCCA CAATCTCATN AAGGATGTTA 100
TAGATATATC CAAAGAAAA TAAATCATTG TTCAAAAAGA CACATACACT 150
AACACGTTCA TGGAGCACTA TTCACACAGC AAAGACTCGA TCAACTCACA 200
30 CACTCATGAA TGCGGATCGA AATAGAAGAT GTGGTATGCA TACACCACGA 250
AATACTACGA GCCATAAAG GCGAAATC 278

35

(2) INFORMATION FOR SEQ ID :1114:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 125 base pairs
40 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

566

(xi) SEQUENCE DESCRIPTION: SEQ ID :1114:

ACCTGCAAAC TTTTCTGTA AAGACCAGAT AGTAAGTATT TTATGCTTTG 50
5 TGAGCCATAC AGTTTTTGTT GCAACTAGTC AACTCTCAAC TNACGTGGAC 100
AGCATGTAAA GAACGAGAGT GACTG 125

(2) INFORMATION FOR SEQ ID :1115:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 157 base pairs
(B) TYPE: nucleic acid
15 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1115:

GTAGCGACCG GCGCTCATGG AATTCCGGGA CCTGCAAAC TTTTGAAAG 50
ACCAGATAGT AAGTATTTTA TGCTTTGTGA GCCATACAGT TTTGTGCAA 100
25 CTAGTCAAAC CTCAAACAC CGTGGACAGC ATGTAAATGG ATGGGAGTGG 150
CTGCCGG 157

(2) INFORMATION FOR SEQ ID :1116:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 123 base pairs
(B) TYPE: nucleic acid
35 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1116:

CCTGCAAAC TTTTCTGTAA AGACCAGATA GTAAGTATTT TATGCTTTGT 50

567

GAGCCATACA GTTTTGTG CAACTAGTCA ACTCTCAACT NACGTGGACA 100

GCATGTAAAG AACGAGAGTG ACT 123

5 (2) INFORMATION FOR SEQ ID :1117:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 125 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1117:

ACCTGCAAAC TTTTGTGTA AAGACCAGAT ACTAAGTATT TTATGCTTTG 50

TGAGCCATAC AGTTTGTG CAACTAGTCA ACTCTCAACT CACCGTGGAC 100

20 AGCATGTAAA TGGATGGGAG TGGCT 125

(2) INFORMATION FOR SEQ ID :1118:

25 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 125 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1118:

35 ACCTGCAAAC TTTTCTGTA AAGGACCAGA TAGTAAGTAT TTTATGCTTT 50

GTGAGCCATA CAGTTTTCGT TGCAACTAGT CAACTCTCAA CTCACCGTG 100

GACAGCATGT AAATGGATGG GAGTG 125

40

(2) INFORMATION FOR SEQ ID :1119:

568

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 148 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1119:

10 ATTAAGCTTG ACACATCTGT GTTATCACGC ACTGAAGACA GGAAGCAGTT 50
CACTGAGTCA GCTGGCTTCC AAGCTTACAC AGAAGGCGAT AAGTCACTAT 100
15 CAAAGAGCCA ATGAGAATCT TCTTATAGAA TAACCTGGGC CCAAGTGA 148

(2) INFORMATION FOR SEQ ID :1120:

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 240 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1120:

25 AGAATAACAG AGCCAAAGGA CTAATAAAAT CAATGAATCN TGGTGAGACT 50
30 AATCAAGAAA AAATAGCACC AACAACAATG AGGAGAAAAT GGAAAAAGGG 100
CAGAGTATTT CAATGATTAC GAGAGGGCAA ACCAATCAAC GAATGATTCT 150
35 TAAGCCTTCA GTTGGCCCTG TAAGCAAACCT GAAGACGTGC AAGTCATCCT 200
TTGCCCTGGG AGAGTTAACT TAACCCACAG GGACAACTAG 240

(2) INFORMATION FOR SEQ ID :1121:

(i) SEQUENCE CHARACTERISTICS:

- 40 (A) LENGTH: 254 base pairs

569

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1121:

AAATGGGGAG AATCAACAGA GCCAAAGGAC TAATAAAATT AAGAATCCTG 50
10 GTGAGACTAA TAAGAAAAAA TACACCAACA ACAATCCGAG AAAATGGAAA 100
AAGGGCAGAG TATTTAATGA TACGAAGATG GGCAAACCAA TCAATGAATG 150
15 ATTTTAAAGC CTTACGTCT GCCCTGTAAG CAACTGAAG ACGTGCAAGT 200
CATCCTTCGG CCCTGGAGAG TTAACGTTNC CCAAGGGGCA ATGAGAAGGG 250
ACAG 254

20

(2) INFORMATION FOR SEQ ID :1122:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 253 base pairs
25 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1122:

AAACGAGGGG AGAATCAACA GAGCCAAAGG ACTAATAAAA TCAATGAATC 50
35 NTGGTGAGAC TAATCAAGAA AAAATAGCAC CAACAACAAT GAGGAGAAAA 100
TGAAAAAGG GCAGAGTATT TCAATGATTA CGGAGAGGGC AAACCAATCA 150
ACGAATGATT CTTAAGCCTT CACGTTTGCC CTGTAAGCAA ACTGAAGACG 200
40 TGCAAGTCAT CCTTTGCCCT GGGAGAGTTA ACTTAACCCA CAGGGACAAC 250

570

GAG

253

(2) INFORMATION FOR SEQ ID :1123:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 210 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1123:

15 AAATGGGGAG AATCAACAGA GCCAAGGAC TAATAAAATT AATGAATCCT 50
GGTGAGACTA ATAAGAAAAA ATACACCAAC AACAATCCGA GAAATGGAA 100
AAAGGCAGA GTATTTAATG ATACGAAGAT GGGCAAACCA ATCAATGAAT 150
20 GATTTTAAAG CCTTCACGTC TGCCCTGTAA GCAAACCTGAA GACGTGCAAG 200
TCATCCTTTG 210

25 (2) INFORMATION FOR SEQ ID :1124:

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 231 base pairs
(B) TYPE: nucleic acid
30 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1124:

AAATGGGGGG AGAATCAACA GAGCCAAAGG ACTAATAAAA TTAATGAATC 50
CTGGTGAGAC TAATCAAGAA AAAATAGCAC CAACAACAAT CAAGAGAAAA 100
40 TGGAAAAGG GCAGAGTATT TAAATGATTA CGGAGACGGG CAAACCAATC 150

571

AACGAATGAT TCTTAAGCCT TCATGTTTGC CCTGTAAGCA AACTGAAGAC 200
GTGCAAGTCA TCCTTTGGAC CCTGGGAGAG T 231

5

(2) INFORMATION FOR SEQ ID :1125:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 89 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1125:

AAGTCCCATC AGCAACCCGT TTTTACCAG ATGTCACTCA AGAATGCGCC 50
CGTGGCCCTC CAGTTCCTGC GCACTAAGAG CGTCCCGCT 89

(2) INFORMATION FOR SEQ ID :1126:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 205 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1126:

AAGAAACCCG AGACMCCAAC TAATCCCAGA ACAGCTAAAA CCAATAAAGA 50
ACCAAAACTT CACGACCACT TTCCTGAGGA CCCTGCTGAG TGCTCATGAC 100
ACCAATACTG ACAATTGTAG CGGTAATACA TACAATGATT TAATAAGCCT 150
ATGCTACTGG ACACATGCCC ACACAATAAT ANTCANRTGT NTYGTAGGC 200
CTACT 205

572

(2) INFORMATION FOR SEQ ID :1127:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 151 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1127:

GCAAGGCCTG GCCGACAACA CCCTTATTGC TAAAGTAAAT AATGNCGGCG 50
15 GGGGCCTGGA CCACCTCTG GAAGAAGATT GTACCTTGA GCTTCTCAAG 100
TCTGAGGATG AGGAAGCTCA GGCAGTGAT TGGCGCTTA GTATCACATA 150
A 151

20

(2) INFORMATION FOR SEQ ID :1128:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 237 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1128:

GAGCACCCCA GCCCATAACA CAGAACTCGT CCCCCTACCC CCCTCAGCAA 50
35 GCCGGAGAGG CTAGCCCAAG TAATCATAAY AACAGCCGCC CGAGAGCAGC 100
CCCAGTAGCA GCCCCATGGC CGGGCGGAAC ACCTACATCG ACAACCTCAT 150
GACAGACGAG ACCTGCCAGG ACGCAGCCAT TGGGGGCTGC AAGGCCTCRC 200
40 CCTTCGTCTG GGCCGCCGTC CCCGGAGAAA CGCTCGT 237

573

(2) INFORMATION FOR SEQ ID :1129:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 126 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1129:

GCCTCGTGGA AGTGACATAG CCTTTAAACC CTGCGTGGCA ATCCCTGACG 50
CACCACGTGA CGCCCAGGAA AGACAGGGCG ACCTGGAAGT CCAACTACTT 100
CCTTAAGATC ATCCAACATAT AGGATG 126

20

(2) INFORMATION FOR SEQ ID :1130:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 246 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1130:

30

GCCATCTTCT GTAACAAAAT AAATAGTGTC AAGCACTAAA TATATGCATG 50
AATGCATCAG CAATAAGATG ACAATCAAAG AATGCTGTGA AGATTGGCAT 100
CAAGATGTTA GCAGCATACT GCAGGACTAG GCTTAGAAGC CTACCTGCAG 150
TTTATTTGCA AGGATTTTTC TTTCGRGGGC GGAGGGGAGA GAAAAGTAAA 200
TGTGCTAACT TCGGATACTT GCCCTTATAA AGAATTCCTT YGTATC 246

40

(2) INFORMATION FOR SEQ ID :1131:

574

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 273 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

5 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1131:

10 CGAGGATCCG GGTACCATGG CAAGTCTCAT GAGGCTATTT ACCGAATTTA 50
TCCTCTGTCT GACCATGATT TTTTCCCTCA AATACAACCA CTCCTCGACT 100
15 TTTCACCCTC AAAGTATAAA AAGTATGAAA NATAAACAAG CTCTTGCACT 150
GTACACTTAG AAGTGACAA TTAAAGCATT ATAGAGCTAT CTACACACCG 200
ATAAATCCCA TCGAATCTTG AATAATCCAT CAATACGTAG AACGCAAGGG 250
20 TGCAGACAGA ACTAAAACCA ACT 273

(2) INFORMATION FOR SEQ ID :1132:

25 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 329 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1132:

35 GAGGATCCGG GTACCATGGT CTGTATATCT GTGCTTCCAC TTCTCGGAGG 50
TGGTAGAGGG GAGGCTGTCC TCTGGTCAGG AGAATCCTAT TCAGTGCTCC 100
CTTAGACATT CTTCCAGGCA GGATCAAACCT CAAAGGAAAA GGAATTTGTG 150
40 AAGCAAACCA TGGCTTTGTC ACAGTAAAGT AATTGTCCT CTCAACCCAG 200

575

AATGTGTGAA GCGCTGCAGG GAGAAGCTTC TCTTCCAGGA GAGCAATANA 250

AGCCAATGTA TCTGACCCTT GCTTYGATGA GAGTTAATAA TAAGTATTAT 300

5 ATTTCTGTTT GTTAAAAAGT TCAGAATTT 329

(2) INFORMATION FOR SEQ ID :1133:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1133:

CCCCGAGCTA GTTGTCCCGA CCTG 24

20

(2) INFORMATION FOR SEQ ID :1134:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 297 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1134:

GAGGATCCAC AAACCATGGA ACACTCTCGC GGCTGCCACT CCCCCATGAC 50

35 CACCCTACAG GCCCTAACCC CAGCCCCTCA CGTTATCGTC CAGCCACAAA 100

TAGCTGCCGC CCTGAGATCT CCACCTCAGA CCTCTCCCG AAGCCCACAG 150

CGGCCCCCTGC CGGGCACCCC AGCTTCCTCG CAGGCACCAA AAGCGCAGTT 200

40

CCAGGAATCT CTACCCTAGA GTGATCCGGC GCCAGTTGCC ACTTAAGGGA 250

576

CCAAACCTCG CCAGAAGGCT TCTTTTCGGG TTGATCGCCA TCTATTY

297

(2) INFORMATION FOR SEQ ID :1135:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 93 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1135:

15 GCCGCTTTAC TGCTCAGTTC GGAGCTACCG CTTCGAAAGC AACAAAAAAG 50

CNTTTGCAAA TGAAACGAGA TTGCTGAATT GCGTACACCG AGA 93

(2) INFORMATION FOR SEQ ID :1136:

20

- (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 334 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1136:

30

CGAGGATCCG GGTACCATGG AGCTTCACAC GGGTCTTCTT GGTCTCAGGG 50

TTGTGGGAGA TAACGGTGGC ATAGTTCCCT GATGCCCGGG CCAGCTTGCC 100

35 ACGGTCTCCA GGCTTCTCCT CCAGGCAGCA CACGATTGTA CCCTCAGGCA 150

TGGTGCCAC AGGGAGCRCA TTGCCAATGT TGAGCTGGGC CTTCTTGCCG 200

CAATACACAA ACTGGCCCGT GNGAATGCCC TCGCGGGCAA TGAACAGTTC 250

40

CGCCCGCTTC TTAAACCAAG ACAGATCCCG GAAGGCCGCC TGGGCAAGGG 300

577

GCCCCCTCRAA CCCGGGGCTA TACACGTCAA AATC

334

(2) INFORMATION FOR SEQ ID :1137:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 199 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1137:

15 CGAGGATCCG CATACCATGG CCCCATCTT ACGAGCCCTT ACTCCTCATG 50
ATGAAGAAAC TCCAAACCCT TTGACAGCTC CTCGGGGTNA AACCTGGNAY 100
AAAGCTGACT GACCAGGCTC CATGAAATCT CCCATCTCCA TRATGTACCT 150
20 CCTTGRTGCC ATCTCTATAT AAAGMGAACC AGTCCTAAAA TCAAACACT 199

(2) INFORMATION FOR SEQ ID :1138:

- 25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 304 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1138:

35 CGAGGATCCA AATACCATGG CGCTCCCTCC TCCCGAGCGC CGCTCCGCGT 50
GGCACCCGGC TCGCTCCGAG TTTCAGGCTC GTGCTAAGCT AGCGCCGTCG 100
TCGTCTCCCT TCAGTCGCCA TCATGATTAT CTACCGGGAC CTCATCAGCC 150
40 ACCATGAGAT GTTCTCCAAC ATCTACAAGA TCCGGGAGAT CGCGGACGGG 200

578

TTGTGCCTGG AGGTGAAGGG GAAGATGATC ACTAGGACAG AAGGTAACAT 250
TGMTGACTTG CTCATTGGTG GAAATGCTTC CTCTGAAGGC CCCGAGGAAG 300
5 AAGG 304

(2) INFORMATION FOR SEQ ID :1139:

(i) SEQUENCE CHARACTERISTICS:

- 10 (A) LENGTH: 277 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1139:

20 GAGGATCCGG GTACCATGAG AAACCTTGAA GCCAGAGATT TTAACAATC 50
AAGGCACTTG AAAACATTAA GTATATGTAC AAATGTGCAA GTAAACAAA 100
CAGCTGTACC AACGAGTAAC AAAGAAACAG TAAATCTTCA TCTTAACAAC 150
25 CTTTAATAGT TATCTAAATG CAGAGTTTGT TTATGAAATG AACCAAAGCA 200
GTTTGTCAAT TCTTACTATA AAATACCGAA AATAAAGTGC AAAACTTAGC 250
CACTACTGGC TAAAGAAACT AAGTAAA 277
30

(2) INFORMATION FOR SEQ ID :1140:

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 208 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1140:

579

CGAGATCCGG GTACCATGGC CTCCTACAGG TGCCGTGGAG CCACGCCCAA 50
AAGAGAGCTC CCTGAGAAAC TCGTTGATGC CTTGCTCACT GAAGGAGCCT 100
5 TTTAGCAGAG CAAATTTTCAT CTTGCCGTGCA TTGATGGCGG CCATGGCGGG 150
GTACCCAAAC CCTCCAATTC CCAACGCGGT CTCAAGTTCA GACTGGGCTC 200
CAGCTTCT 208

10

(2) INFORMATION FOR SEQ ID :1141:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 274 base pairs
15 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

20

(xi) SEQUENCE DESCRIPTION: SEQ ID :1141:

CGAGGATCCG AGTACCATGG CCTCGAACTG AGCATCAATA TATTCTACTG 50
25 CCAGCTTATA ACTGTCATCT TTATTCATAT GGTCTCCAAA TCCCACGATG 100
TCAACAATGG TTAAC TTCAG CCGTACATTG CTTTCCTGAA GCTCATAACT 150
TCTGGCTTTT AACCGAACAC CTGGTTCATT GTGAGTAGCT GGGTCACTTT 200
30 TAAATTTGGT GTTGAACAAA GTGTCCATTA ACGTGGATTT GCCAATGCCT 250
GTCTCACCAA TACAAAGGAT GTTG 274

35

(2) INFORMATION FOR SEQ ID :1142:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 226 base pairs
40 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

580

(xi) SEQUENCE DESCRIPTION: SEQ ID :1142:

5 GCCTGCACAT TGACTGTGGG AAAC TCGGAA ACAAGCTCAC ATCTCCCCGT 50
GGGAAACCTT CTAGCAACAG GATGAGTCTG CAGTGAAC TG CAGTTGCCAC 100
CTTCCTCTAT GCGGAGGTCT TTGTTGTGTT GCTTCTCTGC ATTCCCTTCA 150
10 TTTCTCCTAA AAGATGGCAG AAGATTTTAA AGTCCCGGCT GATGGAGTTG 200
TTAGTGCCT ATGGTAACAC CTTCTT 226

(2) INFORMATION FOR SEQ ID :1143:

15

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 168 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1143:

25

RGGR TCCRNG TGCCRTGGGG YNTNNCTAGR CRGCRGGYAA GGTCCACCRC 50
TGRCRCNTG NCNGTGAGGR CRTGNRGGNC CRTGCGAGTG GGCTTACCGN 100
30 TAGGTTCGGG AATGACCTTG CYMACGNCNN YGACAGCTAA GTRGRNGCRG 150
GNANGRTGNN GTGGAGRG 168

(2) INFORMATION FOR SEQ ID :1144:

35

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 256 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
40 (D) TOPOLOGY: linear

581

(xi) SEQUENCE DESCRIPTION: SEQ ID :1144:

CGAGGATCCA AATACCATGG AGCTGACAAT GTCAGCTCAA TTTGAAGTAT 50
5 TCTTGAGGGA CCTTTTGCTC ATAGGCTTTA ATTCTGTCTG TGACTTTTGC 100
CAGGATTTGA GGAAATCGAC TGCCTTCACT CTCCCTGAA ACTTTGAAGT 150
CCACATAAGG GCTTTCTCAT CAAATGGCAG AAATTATAAT TTATAAACCT 200
10 AAACAACCTT ATAGTGTTTT CGCTTGAAT TGTATGAATT CTTAGAAGT 250
AGAAGT 256

15 (2) INFORMATION FOR SEQ ID :1145:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 184 base pairs
(B) TYPE: nucleic acid
20 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25 (xi) SEQUENCE DESCRIPTION: SEQ ID :1145:

AAACACAAGG CTAAAAGTCA CTAAAGGTGA CACAGTACCA ACCCCGGGAA 50
GGTTGAGTTC TGTGCTGCTA CCTTCTACTG ATGGCGAATA GACTATTCTG 100
30 TACCCTGTGA TGGGAGCCTG GGGTCTGCTC CAGCAAACAA CAATCGAGGT 150
GTAATCAACT TGGTCCACAG TCGGGTCAGG AGGG 184

35 (2) INFORMATION FOR SEQ ID :1146:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 221 base pairs
(B) TYPE: nucleic acid
40 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

582

(xi) SEQUENCE DESCRIPTION: SEQ ID :1146:

5 CGAGGATCCG GGTACCATGG CCCAAAGAGT GAATGATGTA TCCCAGGGCG 50
CAGTCCACAA CTTGGCGAGT ACCTTCCCAG ATGACAGCCT CACTGGACCG 100
ATTTCATCC ACGAAGATGA TGCTAAGAAG CACCATGAGC AGACCCAGCT 150
10 TGGGTGAGTC CTTAGTCGTT CCCAGTATGC CTGCATCAGT GGGCTCTAAG 200
GTGCTGAGAA GAATGCACAA G 221

(2) INFORMATION FOR SEQ ID :1147:

15

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 255 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
20 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1147:

25 CGAGGATCCA AATACCATGG GAGTCAAGCA TGCCTCGATA GCCACAGATT 50
TACAAGAATT ACCTACAGTT TGCTTCTTNG AATCGACATG CAAATCTGCT 100
30 TAAGGATTCT CACATTCAGG ACAGAGAACA AATTTTTTAA TGAATCCATC 150
CAACAGGTCT TGNAGTTTAT TCGCCTCATG AGATCCATTG ATAATGGAAC 200
RRTMATTCTT AACANCAAC NGMGMTGNNT NTCCCRNCTT ATAACCMAAA 250
35 GATNT 255

(2) INFORMATION FOR SEQ ID :1148:

40

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 230 base pairs
(B) TYPE: nucleic acid

583

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1148:

	CGAGGATCCA GGTACCATGG ACGATTCACA GCCCCTGGCC ACTGGCCATT	50
10	TCCAGTGGTA GGGAGCACAC TGRTACATT CGAGACCCAC CACGTTGAGC	100
	AGACAAAGGC AGCCTCCACT CTCCTCGTCA CTCAACATGT ACCTCCGTCC	150
	CCCAGGATGT TGTAGTTATA GCAATAGCAG CCCTGCGGTT GACGTAGGTG	200
15	AGTCGGTGAC GCCCGATTTG GATCGGGTGT	230

(2) INFORMATION FOR SEQ ID :1149:

20

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 223 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1149:

30	GTGCCGTTGG TCCTGTGCGG TCACTTAACC AAGATGCCTG AGGAAACCCA	50
	GACCCAAGAC CAACCAATGG AGGAGGAGGA GGTGAGACG TTCTCCTTTC	100
	AGGCAGAAAT CGCCCAGTTG ATGTCATTGA TCATCAATAT TACCNACTAG	150
35	AACAAAGAGA TCTTTCTGAG AGAGCTTATT CAAAATACAT TAAATGTATT	200
	GGACAAAATT CGATATAAAA GCT	223

40

(2) INFORMATION FOR SEQ ID :1150:

(i) SEQUENCE CHARACTERISTICS:

584

- (A) LENGTH: 272 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1150:

10	CGAGGATCCG AGCACCATGG AGAGACTATG ACGCTCAACA AGAATCACTC	50
	GGAGGGCGAC GGAGTGATCG TCAATAACAC CGAGATTC CTAATGCCCT	100
	ATGATCACGT GGAACATAACA TCAATGACA TGAAGAACGT GCCAGAAGCC	150
15	TTCAAAGAGA CCAAGAAAGG CGCTGTCTAC CTTACTTCTC ATTGAACCAT	200
	CTTTATGTCC AAGAACAAGG ATGCGATGGG TATTTCTGTA NGCTATTTGA	250
20	NMTRAGGRMA GNCTGNAAGG TM	272

(2) INFORMATION FOR SEQ ID :1151:

(i) SEQUENCE CHARACTERISTICS:

- 25 (A) LENGTH: 140 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1151:

35	TGAGGATTTA TAGATTANAG CTAGAGTTCA CATTITATGG ATTACAACCA	50
	AAAAAAACCT GAAAAAGAAA AAAAACAAAA AAGCTCAAAA GCAATCACAA	100
	GGATAGTTGA ATCCCTCTTT AAACCCCAAA AGCAACCCCC	140

40 (2) INFORMATION FOR SEQ ID :1152:

(i) SEQUENCE CHARACTERISTICS:

585

- (A) LENGTH: 208 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1152:

10	AAGGATCCGG GTACCATGTA TTCCCCGGT ATCAGCAGAG GCGTGACGG	50
	GCACTGCTTT AAAACTGGGA AGGAGGAAGA CGAGGCCAGG GAGCCGGAGG	100
	GTCACCAAGG TAGATTCCA GCAGCCTAGT CCAGCTGAAC GCTTCCAGC	150
15	CTTGCTTTTT AGCAGCTTTG AGGAAAAGTA TAGTGATCCG GATGTGAAAC	200
	TTTCATTG	208

20 (2) INFORMATION FOR SEQ ID :1153:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 274 base pairs
- (B) TYPE: nucleic acid
- 25 (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

30 (xi) SEQUENCE DESCRIPTION: SEQ ID :1153:

	CGAGGATCCA GGTACCATGG GGTGGATCCG CCGGGCATAG CCACCCTGGA	50
	TGGTGGCCAT GGTGAGGCCG ATGAGGAAAA ACATCTTCCC CTGCTGTAGG	100
35	CTACTGAACT GGAAGCGCTG GTGTGTGAGG AAGCTCAACG TGCACTCCAG	150
	GCCCAAGAAC AGGAAGAGGT AGAGGAAGTA GACTMGGCCC AGGCGGCCAG	200
40	GCTGATGAAT TGTCTCCAAA GGGTGAGACC TGGCCACGAG CCATANCCCA	250
	GAMGCCNMAC AGGGCTRGGG ACTG	274

586

(2) INFORMATION FOR SEQ ID :1154:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 267 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1154:

GAGGATCCAC CGACCATGGA ACACTCTCAA TGGCTGCAAC CACCCCGTGG 50
15 CCCCCCTACC AGCCCCAATC TCCAAACCCC GCACGTCGAT CATGACGCCA 100
CCAACAGCTG CAGCCCCCTGA GATCTTCACC TTAGACCCTC TCCCGAAGCC 150
CGCAGCCGCC CCTGCGAACC CTCCAACCTCG TTCACACGCG CCGAAAGCCT 200
20 ATTCCCAGGA CTCTCTGCCC CTACGTGACC GNCCCTAGCT GCTAGTCGAG 250
AATCCGAACT CCGCTCC 267

25 (2) INFORMATION FOR SEQ ID :1155:

(i) SEQUENCE CHARACTERISTICS:

- 30 (A) LENGTH: 231 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1155:

CTCAAACCCC GNTTCCCCC TAATAAGAGC AACTAAAAA CTTCTGATAA 50
CCACAATAAA AGCGTGCATT TGAGCACAAT TCAAAGCCA ACCCCTTCGA 100
40 AGGNGCTTCT GATGNAAAAG GAGTTATGTT GAACGAAGCA GGAGTTAACC 150

587

CTACACAGTC AAATTGTGGC ATTAGGACGC GCGAGCGGGC TAGCTGCGGC 200

CGTCTANCAA GGCAACGGCC GCCTTTGAAT T 231

5 (2) INFORMATION FOR SEQ ID :1156:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 128 base pairs

(B) TYPE: nucleic acid

10 (C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1156:

GCGCGAGCAC AGAGCCTCGC CTTTGCCGAT CCGCCGCCCA TCCACACCTG 50

CCGCCAGCTC ACCGTGTATG ATGATATCAC CNCGCTCGCC ACCAACRACG 100

20 GCTCYAACMT GTGCAAGGCC GCCTTCAA 128

(2) INFORMATION FOR SEQ ID :1157:

25 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 126 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

30 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1157:

35 GCCGCAACAC AACCCAGGGA GACTCAAGNC CACAGGGGCC CCCC GGCTCT 50

GAGGGATTCA CCGTCGCCTC CCGTCCCCG AAGGCCCACA AGGGCAGAAA 100

GGTGAGCCTT ATGCACTGCC TAAAGA 126

40

(2) INFORMATION FOR SEQ ID :1158:

588

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 101 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

5 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1158:

10

AATAACCATA ACTGCAAAAA CCCAAMCAAA AAAAAAGGGG GAACAAAAAA 50

CCCCAAACCC CCAAAAAAAC CAGAAAAAAC CACAAAAAAA AACCCCTCCT 100

15

T 101

(2) INFORMATION FOR SEQ ID :1159:

(i) SEQUENCE CHARACTERISTICS:

20

(A) LENGTH: 172 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1159:

30

GAGGATCCGG GTACGGGCAG GGTGAGAGCC TGGGGTCCAC CGATAACCGG 50

GAGGGAGATG GCGTTCTTGA GCAGAGGGGA TGGGCCGTCC GGGAGCTCCC 100

CCCACACACG GTGGCGGTGC GGGTGAAGTG GAAGGGGAGG TCGAAGGTGC 150

35

CATCTTCTTC AGGCCCTCC AC 172

(2) INFORMATION FOR SEQ ID :1160:

(i) SEQUENCE CHARACTERISTICS:

40

(A) LENGTH: 235 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

589

(D) TOPOLOGY: linear

5 (xi) SEQUENCE DESCRIPTION: SEQ ID :1160:

GAGGATCCAC ATACCATGGA ACAGCACCAC AAAAATAGCC ATTTTGATCA 50
TGGTTATTTT CCAGGACCAC ACGATTGTC TACGTCACTG GAAGGCTATG 100
10 TGTCTGTTCT GAGCCTTCCC ACTCTCCTAA AGGGCAGATG AAGATCAGAG 150
CTTGACCCT GTGATGCCAT TTTAATCAAC CCTGCTTGGT TTAGAGGAT 200
15 TGCTCCCGTG GGTCACTTGA GGCAGGCTCC ACCTT 235

(2) INFORMATION FOR SEQ ID :1161:

(i) SEQUENCE CHARACTERISTICS:
20 (A) LENGTH: 284 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1161:

GAGGATCCAC CAACCATAGA AAGTAAATAC TGTATAAAAA GCTCCAGCTG 50
30 TTAGATACAA ATGCAAAACG CTTCTTAAAA AACGGCCTGA AAAAAAATC 100
ACAGACAATG CCAAACCTTA TAGGTCTGTA TTTCTCTTA TACAAATGC 150
35 CCTCAAATTA AAAAGTAATT CCCATATAGC AATAAAGTCC ACATCTCTGG 200
ATTACCTATA ACCGGTATTA TGGGGTGTGT TTATACTGCC TAGAATGTTA 250
ACCCTCATAA AGCCTTAAAA GTACATTTGT GAAA 284

40

(2) INFORMATION FOR SEQ ID :1162:

590

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 287 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1162:

10

GCTCACATAA ATTTCTTCAC CGACCCTTTT CCTTCAGCT TCCTTACTAT 50

AAAAAACCCC ACA AATA TGTTTCATCAT CATCCATACT AACCAACCCC 100

15

GTCACCATCT CAATCAGCAG CAAGTCCTAC TCTCTGTGGG TGAAACCTTG 150

TTACCACCTC TAGGGGCAGA CCCCTTTTCA GATATATTCA AGAGTTTAAT 200

ATCCTCCAC TATAGCGCTT CGACTTTGTA TCTTCCTCTA TGGCTACCAA 250

20

ATTCTGTCCG TTGATAAGTA CTGGCTCTAA ACCATGC 287

(2) INFORMATION FOR SEQ ID :1163:

25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 122 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1163:

35

GAGGATCCAA AAACCATAAA ATTCATCATC CCCAGCAGGT GCNCTAGCTA 50

TACTTTATTA CAGCAAARCA CAACCACACG CTGAMCTANM TCGTATAGAT 100

AAACACCAAT CATGGGTCGG CC 122

40

(2) INFORMATION FOR SEQ ID :1164:

591

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 142 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1164:

10

GCGCGGGTCT GTCTCTTGCT TCAACAGTGT TTGGACGGAA CAGATCCGGG 50

GACTCTCTTC CAGCCTCCGA CCGCCCTCCG ATTNCCTCTC CACTTGCAAC 100

15 CTCCAAGACC ATCTTCTCGG CCATCTCCTG CTTCTGAAGC CT 142

(2) INFORMATION FOR SEQ ID :1165:

(i) SEQUENCE CHARACTERISTICS:

20

- (A) LENGTH: 219 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1165:

TATTCCCCCG GTATCAGCAG AGGCGTGAC GGGCACTGCT TTAAACTGG 50

30

GAAGGAGGAA GACGAGGCCA GGGAGCCGGA GGGTCACCAA GGTAGATTTC 100

CAGCAGCCCT AGTCCAGCTG AACACTTTC AGCCTTGCTT TTCAGCAGCT 150

35 TTGAGGAAAA GTATAGTGAT CCGTATGTGA AATTTTCATC GCACGTAGCG 200

GATGAGAATA GAGAACTCA 219

(2) INFORMATION FOR SEQ ID :1166:

40

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 202 base pairs

592

(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1166:

10 GAGGATCCAC CAACCATAGA AAGGAAACAA CACTTGGAGT GAACCCGACC 50
CAAGCCACTA CACCCCAGCC TAACCGACAG GTGCTAGACT AATNGTNAAA 100
AACAACCGGA AAATAGACCC GGACGAAGAT CAAAGNTTNT CAATCCAAAC 150
15 ATTTTAGGGG GACCAAGACC CMGGGATCAA AAACAAGGTC CACCACACCC 200
AA 202

20

(2) INFORMATION FOR SEQ ID :1167:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 159 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1167:

GAGAAACCTA CCCAACCAAG AGGCGCCCTG CTTTGTAAATG ACCTTTACGA 50
AGACACGTCT GATACCCAAC CTGACAGAGG AAACAACAGT AGTCTGAAAG 100
35 GGACAGAATG AGAGAGGGGG CTGGAGAAAG AAATGAATAA ACATGAATGC 150
ATCTGGAGA 159

40

(2) INFORMATION FOR SEQ ID :1168:

(i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 211 base pairs

593

- (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1168:

CCCTAGACAA GCCACCTGAG GAGAGGCTCG GAGCCGGGCC CGGACCCCGG 50
10 CGATTGCCAC CGCTTCTCTC TAGTCTCACG AGGGGTTTCC CGCCTCGCAC 100
CCCCACCTCT GGA CTTG CCT TTCCTTCTCT TCTCCGCGTG TGGAGGGAGC 150
15 CAGCGCTTAG GTCGGAGCGA GCCTGGGGCC ACCGCCGTGA AGACATCGCG 200
GGGACCGATT C 211

(2) INFORMATION FOR SEQ ID :1169:

20

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 211 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
25 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1169:

30

GGATTTCGGG TCCTGGCTTT CTGATATTTC TAAAATCGAC CTGGAATCAA 50
CCATTGACAT GTCCTGTGCT AAATATGAAT TCACTGATGC CCTGCTGTGC 100
35 CATGATGATG AGCTGGAAGG GCGCCGGATT GCCTTCATCC TGTACCTGGT 150
TCCTCCCTGG GACAGGAGCA TGGGTGGTAC CCTGGACCTG TACAGCATTG 200
ATGAACACTT T 211

40

(2) INFORMATION FOR SEQ ID :1170:

594

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 266 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1170:

10

GAGGATCCGC GCAACCATAG AACTCACAAC CCAGCCATAT ACCTCAGACA	50
CAATGGAATG GCGGGAGGTC GAGGTNGACA AACCTGAGT AATGTTGGGC	100
ACTTCCGCAC CGGAGCTGTT CTTACCTTTG ATAAAGTGA TGTTATTGCT	150
ATTAATGATC TCTTAACGGA CTTCAACTGT AAAATTNGCA TGATCTAGTC	200
CTATCCACCA ACGNCGAACA ATATGCTGTT GCCAMGATTG AGCACGAGCC	250
GTTTGGGCTC AACGGC	266

20

(2) INFORMATION FOR SEQ ID :1171:

25

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 167 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1171:

35

GGCACAACCC ACTTTGAACA ATCATGCTTC AGAAATCTGC CTGACCTTAG	50
CTGCTGCTGC TGCTCACTTT ATTATAGTAT AACTTCGGTA GGCATACTTG	100
GAGAACATAT CCCACATTAG GAATTGATTT AAGCCTGAGA GTTTGAGGGC	150
TTTAATCCTT TAAACT	167

40

595

(2) INFORMATION FOR SEQ ID :1172:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 232 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

5

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1172:

AATAAACCTC CCTATCACAG TGACCTACTA CCCGCGTGTG CTTATATAAC 50
TAATCCAGGA CAACCCACAA AAATTATAGC AACACACAAA CACACCGCTG 100
ACCATAACAT GTGCGTCTTT CAAAGATGCC TTATCAACCA GAGCGATGAT 150
TACTGAGGAT ACGCAACTCA TAAAACTCTA CTAAAGCAA CAGGGCAGAC 200
GTGCGTCTGT GCCAGTCGTG AATGTGGTGA AC 232

20

(2) INFORMATION FOR SEQ ID :1173:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 93 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1173:

GAGGATCCAC CAACCATAGC CCGAAAATGT GGTAAGGGAC CCTCATCTAT 50
CACACAACNC AGGTAAGAAG GCACCCAGCC CCATGGGCCA TAC 93

35

(2) INFORMATION FOR SEQ ID :1174:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 200 base pairs

40

596

- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

5

(xi) SEQUENCE DESCRIPTION: SEQ ID :1174:

GCCTTTTTTT	ACCCGCCGGA	AGCTACAGCT	TTTGCCCCCC	CAAAAAACC	50
CCACCCTTTT	ACCCACCGCG	GACCCAAAAA	CAGCAAAAC	CAAGGACCTC	100
TCCCAACCCC	AACCCCTCCT	TTTTGGCCCT	TCCTTCCCCC	CCTCCCAGCC	150
CACCCCCAGA	CACCTCAATC	CCCCAAAAGG	ATGCCCTAAA	CCTCTCCTAA	200

(2) INFORMATION FOR SEQ ID :1175:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 121 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1175:

GAGGATCCAA	AAACCATGGC	ATTCATCAGC	CCCAGCAGGT	GTCCCAGCCA	50
TGACTTACCA	TAGCAAACA	CAACCACACA	CTAACCTGCA	TCGCCTAGCT	100
TACTGATGAT	GATGTCCTGG	T			121

(2) INFORMATION FOR SEQ ID :1176:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: double
- (D) TOPOLOGY: linear

40

597

(xi) SEQUENCE DESCRIPTION: SEQ ID :1176:

AACCAGACAC GCCGACCCGC TGAATC

26

5

(2) INFORMATION FOR SEQ ID :1177:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 178 base pairs

10

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1177:

GAATCGATCT TGACCTGGCT GCCAGGAATA TCCAGCTTGT TACCGACTGG

50

20

TAAAGAATAA GACCGCTGAT CATAGAGTGA AGCTCCAGGA ATCAGAGAGT

100

CTCATAGCAA ACCTCGAAAC TGAGGATGAG ATGGTTACAG ATAAAGCCTT

150

TCAGGATGGA TTMAAGNAMG CAGAGAGG

178

25

(2) INFORMATION FOR SEQ ID :1178:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 144 base pairs

30

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1178:

GGTTAAGTTT TTCATCAAAG ACTCAGGTAC CTATTATCGT TCCCTGGCGA

50

40

AACTGAGGAG AAAAGTTAAT CAACCAGGTT ACTCCCACAG TTTGCCCGTG

100

TGTTATGCAT CAGTTATACA GGTATCCCAC CAAGTTCAAG TCAA

144

598

(2) INFORMATION FOR SEQ ID :1179:

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 233 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1179:

GACCAGGGAG GAGGTTTAAT CAACTTGGAC CCCCTCCGGC CTAGCCGCCG 50
15 AGGAGGTGCA TTCGGGACAA CCACTAGGTC AGAACGCAGC CTCTCCAGAG 100
TCCTCAGGCT CGACAACGAT TATCCTGCTG CTATCAGCT TTGATTTACT 150
GATCTCGCTG AAAAGACAGA CGCTTTTAGA TACCGAGTCG ATAGGGGGTC 200
20 TGCGGTACTT TTCAGTAGAT AGGTGGTGCT TGT 233

(2) INFORMATION FOR SEQ ID :1180:

- 25 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 225 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1180:

35 CGAGGATCCG GGTACCATGG GCCGGATACA ACGAGCTATC ATTACTGCTC 50
CCATGGCCAA AACCAGCAGT CCCACAATCC CCGTGAAAGG GATGAGGTAA 100
TAGCCCAAGG GGAAGGTATT GTCTGGAACC AGAAGCGCCC GAGCCCCCTT 150
40 CTTGTAGRCA AAGAGGGCGC CCAGGTGCTT GGAGCTNCTN TCCCCAATGG 200

599

AGGTAGACGG GACCAAGATC TGCTG

225

(2) INFORMATION FOR SEQ ID :1181:

5 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 293 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1181:

15	TGAGGATTTA AAAATTCTGG AATATCTATG ATTGATCGTC AACTTTATTC	50
	GATGAATAAG CTTGATGTGG CCTAGTTTNN NGNNNNNTGG NYATGGTNNNA	100
	TCNNNTTANT TTTTGGTTG TTGTGNATAT TATNGAATAR AMGAATRGNG	150
20	TTTAGAGTTT GGAAGCGGCN RNCCTARMG NNACTCYACG CTCGCNNCTN	200
	TTGNNNNACA GMRGGNTCTC TNGGRTGAGT GGRNCGMTT GGMGGNNTCN	250
25	NNNTAGCTGN NGNGAGRATC AGCTRGCTTN CTTTNGGCTN GCT	293

(2) INFORMATION FOR SEQ ID :1182:

30 (i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 252 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: double

(D) TOPOLOGY: linear

35

(xi) SEQUENCE DESCRIPTION: SEQ ID :1182:

40	GAGGATCCGG GTACCATGGC TCTCTCTTTC TTTTTTTTCT TTTTCTTGGC	50
	GGATGTGAGA GCTGCCTGAG ATTCAAGGTC ATCCGGCAGC TCAGTCCCCA	100

600

CCACCTCTGT CTCTGGCTCC ACTGTGGCAT CTTGCTGTTT TTCTTTCTCA 150
GTCTTCTCTT AGGGAGCTGC CAGAGCTGCC TGGACCTGAG AATTCATTCC 200
5 TTCTGGCTGT TGAGACCCCG TGGACTCCCC TGGATTCCAG AGNNTNATTT 250
NG 252

(2) INFORMATION FOR SEQ ID :1183:

10

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 202 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
15 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1183:

20

ACGAGGATCT GAATACTCTG GCTGCAAGT AGAGGCTAAT TCGATGTGTG 50
AAACTGTAGA TTCGGCTTAA GGTAATAGTC ATTTATAGAC TATTCAATAG 100
25 AGTCAGACTG GTCGAGGCTG GTAAGTGTAG CGGAACGGTT GCTGACTGAT 150
ATTGTTAGAG TGAGGCTTGT ACTGGTGTGT ATCCGTAGGT GGTCTGCAGT 200
GT 202

30

(2) INFORMATION FOR SEQ ID :1184:

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 43 base pairs
35 (B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID :1184:

601

CAGATCCTCA GCTTTCGTGG TTCACAATTT CTCAGTCTC TTA

43

(2) INFORMATION FOR SEQ ID :1185:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 48 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID :1185:

15 ACCGTCCTTC TGGTTCATCC TAGCAAAAAT CTCACCATCT TCTATCAC

48

(2) INFORMATION FOR SEQ ID :1186:

- 20 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 104 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID :1186:

30 ACATCATCCG AGTCCCCTCT ACAGTGTTC TGTGATCGT TGCATCCCCC

50

TGGTTTGGAA ATAAATATA AACTGCCCCG CAAGAGATAA AATTGTATTT

100

TTTA

104

35 (2) INFORMATION FOR SEQ ID :1187:

- 40 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 76 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear

602

(xi) SEQUENCE DESCRIPTION: SEQ ID :1187:

5 CTGGTTCTGT TTCTCGCAGG TGGTAGAGGG GAGGCTGTCC TCTGGTCAGG 50
AGAATCCTAT TCAGTGCTCC CTTAGA 76

(2) INFORMATION FOR SEQ ID :1188:

10 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 42 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
15

(xi) SEQUENCE DESCRIPTION: SEQ ID :1188:

20 AATAGGGCGC GATCAACTCT TAACTTTGAG GAGAACCAAC AA 42

(2) INFORMATION FOR SEQ ID :1189:

(i) SEQUENCE CHARACTERISTICS:
25 (A) LENGTH: 253 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
(D) TOPOLOGY: linear
30

(xi) SEQUENCE DESCRIPTION: SEQ ID :1189:

GGCGGACGTG CGCGCCTTGT CTTGCGGCA CCTGGGCCTG AGGTGCGTGC 50
35 CTCCCGGGCC CTCGCCAGCT CCAGATGCGT GAGGAGGACT TCAGAAACCC 100
GACTGAGAAG TGGAGCAACC CCCAGGAAGG GCCGGACCTG CCTAAATGCC 150
40 GCCAAGGCCT TTTATTTATG GCTAGTTTGC TCTCGTGAA TACTAACATC 200
GTTTTAATGG CACTCATCAA GTACGCAAAT GATATGATTT AACCTCGCGC 250

603

AAT

253

(2) INFORMATION FOR SEQ ID :1190:

- 5 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 252 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
10 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1190:

15 GAGGATCCAC CAACCATAGA ACGGCCCTAC TAATGAACCA CACAAGCTAG 50
TTGCACCACT ATAGAAACAC AAAACTACAC ATCTATACCA ATAAAAATAA 100
CAACTACTCC AATTGCCCAT GTGGTATTGT CGCAGACTGA AATGAATTAT 150
20 GAATTAGGT TGGTTACCAA TATCGGCATA AATAAACTR TGTAAGGCTC 200
AMTATGTTGA CAGTAAGCTC TTGTCAGGTG TCTAATGAGG TAAAAGCATT 250
25 TT 252

(2) INFORMATION FOR SEQ ID :1191:

- 30 (i) SEQUENCE CHARACTERISTICS:
(A) LENGTH: 178 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: double
35 (D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID :1191:

40 GAGGATCCAA CAACCATAGA GCACATAAAA ACCGCCCAAC GATCTAACTA 50
ATATACAACG GCTAACCGGG CCATTCAAAA GCTCGCCCAG ATTAAATGCC 100

604

TGCCGANAGC AAGTACATGG GGAGGATTAC TACTTCCTGG TTGCCAACCA 150
CCCTTCCGGC TGCCCTTGTG TTGACTTG 178

5 (2) INFORMATION FOR SEQ ID :1192:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 156 base pairs
(B) TYPE: nucleic acid
10 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

15 (xi) SEQUENCE DESCRIPTION: SEQ ID :1192:

GGATCGGCGG TAATCGGTGA GCTCGGTGTC GGGTAAGGGA CCCAGTCCAT 50
CGCCACCAAG CGCCAGGAAT GGGCAGCATA AGGGAAGGCT AAGGAGGACT 100
20 GCAACAGGTT AGGGCCCTGG AGATTGTATT TAGCAAGGGT ACCTGCGNNG 150
NGGGCA 156

25 (2) INFORMATION FOR SEQ ID :1193:

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 99 base pairs
(B) TYPE: nucleic acid
30 (C) STRANDEDNESS: double
(D) TOPOLOGY: linear

35 (xi) SEQUENCE DESCRIPTION: SEQ ID :1193:

ATTCTGAATC TTTAATGAAA ATCAGCCCAG AGCTTGTTGT AATACAGACA 50
TAACTGCAAG AGCATGCCCA CAGCTTAGAG AGGTTGTACC AAATTTAGA 99
40

605

(2) INFORMATION FOR SEQ ID NO: 1194

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 24 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

5

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1194:

NNNNTCCTTC TCCTGCGACA GACA

24

15

(2) INFORMATION FOR SEQ ID NO: 1195

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 20 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

20

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1195:

TGTCTGTCGC AGGAGAAGGA

20

30

(2) INFORMATION FOR SEQ ID NO: 1196

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 26 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

35

40

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1196:

AANNTCTCGG ACAGTGCTCC GAGAAC

26

606

(2) INFORMATION FOR SEQ ID NO: 1197

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 26 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1197:

TTNNTCTCGG ACAGTGCTCC GAGAAC

26

15

(2) INFORMATION FOR SEQ ID NO: 1198

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 22 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1198:

GTTCTCGGAG CACTGTCCGA GA

22

30

(2) INFORMATION FOR SEQ ID NO: 1199

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 23 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1199:

GTTCTCGGAG CACTGTCCGA GAG

23

607

(2) INFORMATION FOR SEQ ID NO: 1200

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 23 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1200:

GTTCTCGGAG CACTGTCCGA GAC

23

(2) INFORMATION FOR SEQ ID NO: 1201

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1201:

CTGTCTGTCG CAGGAGAAGG AA

22

(2) INFORMATION FOR SEQ ID NO: 1202

(i) SEQUENCE CHARACTERISTICS:

(A) LENGTH: 22 base pairs

(B) TYPE: nucleic acid

(C) STRANDEDNESS: single

(D) TOPOLOGY: linear

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1202:

CTGTCTGTCG CAGGAGAAGG AG

22

608

(2) INFORMATION FOR SEQ ID NO: 1203

(i) SEQUENCE CHARACTERISTICS:

- 5 (A) LENGTH: 17 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1203:

AGCTCGGCTC GAGTCTG

17

15

(2) INFORMATION FOR SEQ ID NO: 1204

(i) SEQUENCE CHARACTERISTICS:

- 20 (A) LENGTH: 24 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1204:

GCGACAGACA GCAGACTCGA GCCG

24

30

(2) INFORMATION FOR SEQ ID NO: 1205

(i) SEQUENCE CHARACTERISTICS:

- 35 (A) LENGTH: 14 base pairs
(B) TYPE: nucleic acid
(C) STRANDEDNESS: single
(D) TOPOLOGY: linear

40

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1205:

GATCCGGCTC GACT

14

609

(2) INFORMATION FOR SEQ ID NO: 1206

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 18 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1206:

CCGAGAACAC TCGAGCCG

18

15

(2) INFORMATION FOR SEQ ID NO: 1207

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

20

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1207:

GTAAAACGAC GGCCAGT

17

30

(2) INFORMATION FOR SEQ ID NO: 1208

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

35

40

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1208:

CGAGGTCGAC GGTATCG

17

610

(2) INFORMATION FOR SEQ ID NO: 1209

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 17 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1209:

CGAGGTCGAC GGTATCG

17

15

(2) INFORMATION FOR SEQ ID NO: 1210

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 56 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

20

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1210:

TACGTTTCGAC AAGCTTGAAT TCGCGGCCGC TTTTTTTTTT TTTTTTTTTT

50

TTTTTT

56

30

(2) INFORMATION FOR SEQ ID NO: 1211

(i) SEQUENCE CHARACTERISTICS:

- (A) LENGTH: 11 base pairs
- (B) TYPE: nucleic acid
- (C) STRANDEDNESS: single
- (D) TOPOLOGY: linear

35

40

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1211:

611

GCCWSCGCCG A

11

(2) INFORMATION FOR SEQ ID NO: 1212

- 5 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

10

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1212:

15 GGTGGCGACG ACTCCTGGAG CCGC

24

(2) INFORMATION FOR SEQ ID NO: 1213

- 20 (i) SEQUENCE CHARACTERISTICS:
 (A) LENGTH: 24 base pairs
 (B) TYPE: nucleic acid
 (C) STRANDEDNESS: single
 (D) TOPOLOGY: linear

25

(xi) SEQUENCE DESCRIPTION: SEQ ID : 1213:

30 TTGACACCAG ACCAACTGGT AATG

24

35 In the above SEQUENCE LISTINGS, some sequences are preferred because they fall into the category of sequences referred to hereinbefore which exhibit no more than 90% homology to a human sequence known per se. The preferred sequences in these terms are all of sequences SEQ ID Nos 1 to 1193, EXCEPT FOR SEQ ID Nos:

40 85, 117, 177, 197, 223, 248, 317, 354, 355, 483, 829, 1057, 594, 595, 597, 164, 427, 420, 58, 67, 374, 373, 501, 569, 188, 550, 904, 932, 97, 89, 134, 433, 434, 357, 4, 6, 11, 336, 529, 544, 545, 549, 1037, 847,

612

870, 871, 872, 873, 875, 876, 579, 199, 524, 544, 513, 380, 276, 291,
615, 623, 627, 634, 635, 648, 652, 617, 619, 684, 697, 718, 720, 1127,
1145, 1148, 1164, 938, 587, 589, 588, 241, 243, 335, 61.

5

10

15

CLAIMS:

1. A nucleic acid fragment encoding a gene product or portion thereof and comprising any one of:-
 - (a) a sequence selected from SEQ ID Nos 1 to 1193;
 - (b) an allelic variation of a sequence as defined in (a); or
 - (c) a sequence complementary to (a) or (b).
2. A nucleic acid sequence as set out in any one of SEQ ID Nos 1 to 1193, or a complement or allelic variation thereof.
3. A sequence as claimed in claim 2 and which exhibits no more than 90% homology to a human sequence known per se.
4. A nucleic acid fragment comprising a portion of a sequence as defined in claim 2 or claim 3 of sufficient size such that a probe of the same size and exhibiting complementarity to said portion can hybridize to said sequence as defined in claim 2 or claim 3.
5. A fragment as claimed in claim 4, wherein said portion is at least 15 bases in length.
6. A fragment as claimed in any one of claims 1, 4 or 5 and encoding at least a portion of a biologically active polypeptide.
7. A nucleic acid sequence as claimed in claim 2 or claim 3 and encoding at least a portion of a biologically active polypeptide.
8. A DNA construct comprising a fragment as defined in any one of claims 1, 4, 5 or 6 or a sequence as defined in any one of claims 2, 3 or 7, together with a control or regulatory sequence.
9. A construct as claimed in claim 8 which encodes a fusion protein comprising a known protein and the polypeptide encoded by said fragment or sequence.
10. A construct as claimed in claim 9, wherein the fusion protein encoded is a cleavable fusion protein having an endopeptidase recognition site positioned between codons corresponding to said known

614

protein and said fragment or sequence.

11. The use of a fragment as defined in any one of claims 1, 4, 5 or 6 or a sequence as defined in any one of claims 2, 3 or 7 to produce a gene.
12. A DNA fragment comprising a gene obtainable by the use defined in claim 11.
13. An expression vector comprising a fragment as defined in any one of claims 1, 3, 5 or 6, a sequence as defined in any one of claims 2, 3 or 7, a DNA construct as defined in any one of claims 8 to 10, or a DNA fragment as claimed in claim 12, positioned such that that nucleic acid sequence which encodes the polypeptide corresponding to said fragment, sequence or DNA fragment is in operable reading frame with a control or regulatory sequence.
14. A vector as claimed in claim 13, wherein said vector control or regulatory sequence comprises a regulatable promoter.
15. Host cells which incorporate as a heterologous part of their expressible genetic information a fragment as defined in any one of claims 1, 3, 5 or 6, a sequence as defined in any one of claims 2, 3 or 7, or a DNA fragment as defined in claim 12.
16. A process for the production of a polypeptide comprising cultivating host cells as defined in claim 15.
17. An antibody directed against a polypeptide obtainable by the performance of a process as defined in claim 16.
18. An antibody as claimed in claim 17 and which is monoclonal.
19. A novel gene product or portion thereof encoded by a fragment as defined in any one of claims 1, 3, 5 or 6, or encoded by a sequence as defined in any one of claims 2, 3 or 7, or encoded by the gene comprised in a DNA fragment as defined in claim 12.